

University of Texas
Publications

University of Texas Bulletin

No. 2836: September 22, 1928

A MARKET ANALYSIS OF THE CATTLE INDUSTRY OF TEXAS

BY

GEORGE M. LEWIS

Bureau of Business Research

Research Monograph No. 2



University of Texas
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UNIVERSITY OF TEXAS PRESS

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**PUBLISHED BY THE UNIVERSITY FOUR TIMES A MONTH, AND ENTERED AS
SECOND-CLASS MATTER AT THE POSTOFFICE AT AUSTIN, TEXAS,
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The benefits of education and of useful knowledge, generally diffused through a community, are essential to the preservation of a free government.

Sam Houston

Cultivated mind is the guardian genius of democracy. . . . It is the only dictator that freemen acknowledge and the only security that freemen desire.

Mirabeau B. Lamar

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PREFACE

This monograph on the cattle industry is the first of a series of studies dealing with the business side of the livestock and meat packing industries and with wholesale and retail meat distribution in Texas. The volume of business and the number of people involved make this group of inter-related businesses second in importance only to that of cotton and cotton textiles in the economic structure of the State.

The many business problems arising in each branch of the livestock and meat industries, due to the many important economic changes taking place, make these studies extremely timely. The Bureau of Business Research of the University of Texas is pleased to have an opportunity to serve directly so large a number of the people of the State by coöperating with them in the solution of some of these problems.

The comprehensiveness of the data presented herein has been made possible through the access to the records of livestock shipments collected by the United States Department of Agriculture and by the generous coöperation of the several trade associations interested and of a very large number of individuals both in and out of the State.

A. B. Cox, *Director.*

September 22, 1928.

INTRODUCTORY SUMMARY

SCOPE AND PURPOSE OF THE STUDY

This study presents an analysis of the records of cattle shipments to and from Texas showing the volume and the trend of the movement by markets and by states from 1923 to 1927. In those states where one or more of the important markets are located, the shipments are shown for each individual market and for the rest of the state under the caption of "Other Points." Because of the size of Texas and because of the wide variations in the movement of cattle between the different sections of the State, the record of railroad shipments is given for each of the seven livestock districts shown in Figure 1. Each of these district summaries is supplemented with a general description of the character of agriculture and livestock production within the district in order to show the importance of the cattle industry in each district and the manner in which it fits into the general agricultural program of the different sections of the State.

Moreover, this survey attempts to measure the demand for Texas cattle and to ascertain the causes for the frequent shifts in the several market outlets. The five-year shipping records reveal not only the relative importance of each of the market outlets, but also the shifts in the movement from year to year. These figures alone, however, do not show the reasons for the shifting.

A survey of the methods of marketing Texas livestock also has been made in order to coördinate the selling methods of Texas producers with the buying preferences of stocker and feeder buyers in other states. A questionnaire was sent to a large number of Texas producers asking them for an expression as to the methods which they used in selling their livestock during 1927 and the marketing difficulties which they encountered in disposing of their cattle. The results are presented in the fourth section of this study.

A schedule was sent to several hundred buyers of livestock in all the states that receive cattle from Texas. Many of them stated their reasons for preferring Texas livestock and others gave their objections to the type and quality of cattle produced in the State. An analysis of these questionnaires is given in the fifth section of this report.

Finally, an analysis of the marketing costs shows the influence which they exert upon the marketing of Texas cattle at the different markets, and it is hoped that such an analysis will encourage the adoption of a more uniform production and marketing program which will enable Texas cattlemen to secure the most satisfactory returns possible from the sale of their cattle.

SUMMARY

Texas, with 11 per cent of the nation's cattle, is the leading beef cattle producing state. More than two million head of cattle disappear from Texas ranges annually; one million head is slaughtered in the State, while another million is shipped out. The interstate shipments go to over a dozen markets, to 43 states, and to several foreign countries.

The trends of shipments direct to the central markets and to the feeding sections have been downward since 1923, while the movement to the grazing areas has been definitely upward. There are two seasonal movements of Texas cattle shipments, one during the spring and another during the fall. The spring shipments consist largely of steers and cows going to Kansas and Oklahoma grazing areas. The fall movement includes all classes of cattle destined either to some market or to some grazing or feeding area. The principal shipping seasons for each of the classes of cattle to the individual markets and states are given in Section II of this report. The district origin of all direct cattle shipments from Texas are shown for each of the important outlets. The number of head and the percentage distribution by districts for the average of the past five years and for 1927 are presented in tables.

Cattle forwardings from Texas have exceeded incoming shipments by an average of 962,324 head annually since 1923. This outflow, with the number slaughtered within the State and the death losses, gives a total net disappearance of more than two million head, or approximately one-third of the cattle reported on farms and ranches in the State.

District I is one of the most highly developed agricultural sections of Texas. Large acreages of wheat, cotton, grain sorghums, oats, and corn are harvested in the Northwestern district. Approximately 16 per cent of the cattle population are found in this area. More than nine-tenths of the cattle shipped were sent to other states. Cattle are received from other Texas districts and from the adjoining states for grazing purposes.

The West Central district, with 22 per cent of the cattle numbers of the State, is the largest surplus producing area in Texas. The annual forwardings have averaged 490,777 head since 1923. Approximately 69 per cent of these cattle were shipped to other Texas districts, principally the Central district which includes the Fort Worth market. With small incoming shipments, the net outflow has averaged 438,536 head annually since 1923, or about one-third of the number of cattle reported on farms and ranches in District II.

The Central district includes Fort Worth, the leading livestock market of the Southwest. More than one-half of the cattle disappearing from Texas ranges annually pass through this market center. Most of the heavy annual movement from District III represents the re-shipment of cattle from Fort Worth to other markets, grazing areas, and feeding sections. Receipts were heavy from each of the seven livestock districts in the State. The bulk of receipts at this market has been Texas cattle.

District IV is principally a lumbering and a farming section. Beef cattle production is conducted primarily as a joint enterprise with farming or as a by-product of the dairy industry. The principal outlets are the Fort Worth

market and grazing areas in Districts VI and VII. Most of the shipments into this district are received from these same areas.

The Western district is the outstanding specialized cattle producing area of the State. More than three hundred thousand head have been shipped from this section annually since 1923. Approximately 57 per cent of these cattle were consigned direct to other states including the markets at Kansas City, Wichita, and Los Angeles, and grazing and feeding areas in Kansas, Oklahoma, California, Nebraska, Iowa, New Mexico, and Illinois. Receipts of cattle in this district were relatively small except those from New Mexico.

District VI, Southern Texas, is an important breeding area and an extensive grazing section. Approximately 19 per cent of the total number of cattle in the State are located in this district. The annual movement has averaged 347,428 head during this period. More than 63 per cent of the cattle were sent to other Texas districts. The majority of them went to the Fort Worth market. Cattle were received in these grazing grounds from all the adjoining districts.

The Southeastern district ships fewer cattle than any of the other districts. The principal outlets for District VII have been the Fort Worth market and grazing areas in Southern Texas. The relatively heavy receipts from the Eastern, Southern, and Central districts make the annual net outflow a rather small proportion of the estimated number of cattle reported in this district.

METHODS OF MARKETING TEXAS CATTLE

Texas cattle are marketed principally through local sales and direct shipment to the primary markets. Local sales are made either to local traders or to non-resident stocker and feeder buyers. The cattle purchased locally are ordinarily re-shipped to one of the central markets, to some grazing area, or to some feeding section. During 1927, local trading was especially heavy in the western half of the

State because of the unusually strong demand for good stocker and feeder cattle. Many small producers in the eastern half of the State were forced to sell locally because of their inability to ship a carload of cattle at one time. Most of the complaints referred to high transportation costs and other marketing charges. These marketing difficulties were mentioned especially by shippers in Districts I, II, V, and VI, the western half of the State. Many producers in the fever-tick infested areas of Districts III, IV, VI, and VII referred to the restrictions against the shipping of cattle from these quarantine sections. Small producers in the eastern half of Texas expressed the need for coöperative shipping associations in their respective localities.

MARKET OUTLETS FOR TEXAS CATTLE

Texas producers dispose of their cattle through several channels. Some do farm slaughtering, some sell locally to local butchers or other buyers, some ship direct to primary markets, and some sell to stocker and feeder buyers either direct, through coöperative pools, or through private selling agencies.

The sales to stocker and feeder buyers have been increasing in volume during the last five years. These buyers expressed a preference for high quality cattle. Price, quality, and accessibility are the factors which influence feeders in the selection of their cattle. The majority of feeder cattle are obtained in the western half of the State. The western range states are the principal competing sections for this business.

Stocker and feeder buyers use several different methods of buying Texas cattle. Many of the large operators make personal trips to the producing areas, some place their orders with livestock commission agencies, others buy by correspondence with producers, and a few purchase their supply at auction sales.

Some feeder buyers frequently find it difficult to secure cattle of uniform grade and quality when they purchase

their stock at the primary markets. The feeders want cattle that can be acclimated quickly, fattened properly and economically, and sold satisfactorily. The most desirable age and weight depends upon the length of the buyers feeding program. Most feeders prefer male animals for feeding stock. Preference for dehorned cattle is almost universal. The majority of feeding operations begin during the fall months from September to January. The length of the feeding period varies considerably between the different states and the different classes of cattle. Most of the feeders state that Texas cattle are as good as or even better than those from any other producing area.

COSTS OF MARKETING TEXAS CATTLE

Livestock organizations have been working for reductions in marketing costs especially since the drastic decline of prices during 1920 and 1921. They have been responsible for placing livestock markets under the supervision of the Secretary of Agriculture, for the organization of producer-owned selling agencies, and for certain reductions in transportation rates. Relief has come to the livestock shippers not only in the form of reduced freight rates and terminal charges, but also through the return of cattle prices to pre-war levels. The quality of cattle and the cost of reaching the consumer market are more influential in selecting a livestock market than are the differences in the costs between the various market centers.

A MARKET ANALYSIS OF THE CATTLE INDUSTRY OF TEXAS

Section I

IMPORTANCE OF THE CATTLE INDUSTRY

Texas is primarily an agricultural State and the bulk of its income is derived from agricultural pursuits. The gross income received from the sale of all agricultural commodities produced in this State ordinarily exceeds one billion dollars annually. The livestock industry, which is second only to that of cotton in the economic life of the State, contributes a large share of this enormous income, and the cattle business is the most important revenue producing unit of this industry. According to the estimates of the United States Department of Agriculture, the value of all Texas crops in 1927 was \$730,000,000, while the value of all Texas livestock on January 1, 1928, was \$398,000,000; cattle values alone exceeded \$225,000,000. Income from the sale of cattle during 1927 amounted to more than \$76,000,000.¹

Furthermore, Texas is the leading cattle producing State in the Union. There are within its borders 5,607,000 head, or approximately 11 per cent of the Nation's cattle.² Moreover, it is an important surplus beef producing area: More than one million head are slaughtered within the State annually, and more than one million head are shipped out, the bulk of which are slaughtered and distributed to the beef deficient sections of the country within twelve months. The cattle industry of Texas, therefore, exerts a far-reaching influence upon the economic welfare not only of Texas but also of a large number of other states.

¹Bureau of Agricultural Economics, United States Department of Agriculture.

²January 1, 1928, Estimate of the United States Department of Agriculture.

Even though these figures suggest a very strong position, the cattle industry is very poorly organized. It is composed of a large number of individual producers who have little or no knowledge of the relation between the available supply of and the probable demand for beef. Neither do they have effective methods by which the proper balance between these two factors can be maintained.

CHANGES IN THE INDUSTRY

The cattle industry in Texas has experienced many changes during the last two decades. Among the more noticeable of these are: An improvement in the quality of breeding herds; a reduction in the size of ranches and herds; many new marketing problems; material increases in production and marketing costs, and frequent shifts in market outlets.

IMPROVEMENT IN THE QUALITY OF TEXAS CATTLE

Possibly the greatest improvement made in the cattle industry so far has been on the producing side. The results are shown by the better grades and quality of cattle found in the producing areas of Texas at the present time. The practice of removing the inferior and undesirable cows and heifers from the foundation stock and of heading the herds with high grade or registered bulls is not uncommon in many sections of the State. Much progress has resulted from the research and educational work carried on by the experiment stations and extension departments of the agricultural colleges and other agencies.

REDUCTION IN THE SIZE OF HERDS AND RANCHES

The rapid expansion of farming operations which has been going on in several of the important livestock producing sections of Texas has reduced the size of both the ranches and the herds. This development has brought about changes in the marketing system. It has reduced the

size of operations so that there are now many small operators whose marketing problems are different from those of the large producers. Many of these small producers are not able to ship a full car of livestock at any one time. Their principal marketing difficulty, therefore, is to get their few head to a market center instead of being forced to sell to some local buyer who cannot afford to pay the full market price because he must obtain a profit for his services. Frequently producers accuse this class of buyers of not purchasing the animals on the basis of public market values. This problem seems to be increasing in Texas as the size of the herds tends to decrease. Producers in some states have overcome this situation through the organization and operation of coöperative shipping associations. Many of these organizations have worked out methods of grading and marking which enable them to ship to central markets and to sell in uniform carload lots. Under this system, the small producers are assured of the full market value for their livestock. So far, however, this type of shipping organization has met with very little success in Texas, primarily because the size of the unit operations is still large and because not enough of the producers have fully appreciated the advantages of coöperative shipping.

Furthermore, there has been a decided shift in the marketing age of cattle during the last few years. The former plan of marketing steers when they were three, four, or more years old has been superseded largely by the practice of selling them as calves and as one, two, and three-year-old steers. Of the total cattle received at the Fort Worth market, the proportion of calves increased from 23 per cent in 1920 to 26 per cent in 1927. The increase has continued even though this was a period of excessive liquidation of all classes of cattle. This plan of earlier marketing is beneficial to producers in that it creates a more rapid turnover of beef and of capital; it shortens the period through which risks of loss and carrying charges must be borne; and it enables producers to give more attention to the building up and maintenance of the quality of their breeding herds.

THE PECULIARITIES OF MARKETING CATTLE

The present system of marketing cattle possesses many peculiarities and difficulties, some of which are subject to little or no systematic control. In the first place, the producers are so widely scattered and so loosely organized that no control has been exercised over the volume of production or of the movement to market. Furthermore, the finished product of the cattle industry is only the raw product of another large and essential enterprise, the meat packing industry. One is more or less dependent upon the other, even though both are separate and distinct units operating under entirely different conditions. The live-stock industry is the only available source of raw material for the meat packers, and likewise the meat packing industry is the only adequate outlet for the product of cattle raisers. Yet no successful method has been developed whereby the flow of cattle to market can be adjusted to the consumer demand for beef. Many producers ship to market with little knowledge of the volume of cattle receipts or the strength of the beef demand. They expect the packers and other buyers to absorb the entire market supply even though the latter's purchases must be governed largely by the stocker and feeder demand and by the volume of orders which the packers receive from the wholesale and retail trade.

There are certain factors, however, which are difficult to handle even with a strong organization. One of these is that cattle must be marketed when they are fat. This fact alone causes a heavy seasonal movement in the spring and fall because of the large number of grass-fat cattle that move to market each year from Texas ranges. Furthermore, dry seasons, shortage of grass and feed, and maturity of financial obligations also frequently bring about forced marketing.

Obviously, these seasonal and other uncontrollable factors affect the price, since the animals, when slaughtered, must be pushed into consumptive channels, because beef carcasses

cannot be stored except for a brief period. Often a surplus can be moved only by a reduction in the price to the consumer. This reduction, naturally, will be anticipated by the cattle buyers and they will act accordingly.

MARKETING COSTS OVEREMPHASIZED

A considerable amount of thought and attention has been given by livestock producers in recent years to the lowering of the different marketing costs. Obviously, these expenses are an important factor and should be kept at a minimum. At the same time, however, lower marketing costs alone will not solve the marketing difficulties of the cattle industry, because most marketing troubles arise from either a low price level or violent fluctuations in prices. If a more stable price could be maintained at sufficiently high levels, there would be little occasion to worry about the costs of marketing; competition would keep them within reasonable limits.

STABILIZING FACTORS OF CATTLE PRICES

There are some factors influencing the fluctuation of prices which might be controlled if the cattle industry were better organized. But, without a strong working organization, an efficient and orderly system of livestock marketing cannot be developed or maintained.

The crux of the problem is the adjustment of production and flow-to-market to the consumptive demand for beef. This adjustment includes at least a partial control over the daily, the seasonal, and the cyclical movement of cattle to the market centers. No systematic method has been devised whereby a proper balance between these factors may be maintained. Since the consumer demand is governed largely by the purchasing power of the beef-consuming public, it is necessary for the producers to regulate their production and marketing programs to the consumer de-

mand for beef. It is estimated that about 75 per cent of the fluctuations in prices are due to changes in supply.³

Such an adjustment would be difficult to obtain because of the lack of sufficient information and coördinated support of the livestock and meat packing agencies. Nevertheless, with the proper support from all these organizations and with the better use of the information available on the probable future supply of cattle and demand for beef, it should be possible to eliminate a part of these price fluctuations. The collecting and disseminating of market information is being carried on by the United States Department of Agriculture, livestock associations, agricultural colleges, and other affiliated organizations. At the same time neither organizations nor legislation can force producers to follow a definitely outlined program. For effective results, the initiative must come from the producers themselves because the expansion and contraction of production rests largely with them. Continual educational work eventually should cause producers to coöperate and pursue a plan of regulating production similar to that followed by most successful business corporations.

Under the present system no organized attempt is being made by producers to foresee and check an excessive increase of cattle numbers or to anticipate and encourage the expansion of herds before an acute shortage occurs. This creates a hardship upon cattle producers as a result of the violent and irregular fluctuations in prices. When prices are high, production tends to increase until an over-supply forces prices down to an unprofitable level or even below the cost of production; such a condition automatically encourages heavy liquidation. Then, as the balance between the supply and demand is restored, prices return to a more profitable level. These rather definite price cycles have occurred in the cattle industry every fourteen to seventeen years during the last half century,⁴ and similar tendencies

³A. T. Kearney, Commercial Research Department, Swift & Co.

⁴Warren and Pearson, Cornell University.

probably will continue until the producers organize themselves and maintain a better balance between production and consumption. The number of cattle produced should be based upon the consumptive demand and the movement to market should be adjusted to the stocker and feeder requirements and the killing orders of the packers.

Another general practice of many producers in Texas is the marketing of their cattle before they are in the proper condition. This practice of premature marketing lowers the price level and works a hardship upon the producers who hold their cattle until they are ready for market. Furthermore, it forces a poorer quality and a less palatable type of beef upon consumers, all of which tends to discourage consumption.

CHARACTER OF TEXAS CATTLE SHIPMENTS

One of the greatest limiting factors in working on the marketing problems of the cattle industry in the past has been the lack of information on the character of movements of cattle to the different market outlets. With the exception of the Census figures and the several kinds of livestock reports issued by H. H. Schutz, Agricultural Statistician for the United States Department of Agriculture in Texas, very little information has been compiled. During the last few years, however, the United States Department of Agriculture has been collecting every available type of information of assistance in checking up on the number and disposition of each class of livestock.

One of the most useful kinds of data that has been gathered by the Department is a record of the number of head of each class of livestock forwarded and received by months for each livestock shipping station in Texas. The report shows the number of steers, cows and bulls, heifers, calves, hogs, sheep, goats, horses and mules, and the amount of wool and mohair by points of origin in Texas and destinations by states. This detailed record was started first in

Texas in 1923.⁵ It is probably the most complete census of livestock shipments that has ever been compiled. This market analysis will be confined largely to movements of cattle. Other classes of livestock will be analyzed in subsequent studies.

These figures and subsequent reports will be valuable to the officials of the United States Department of Agriculture in checking up on the number and disposition of cattle on farms and ranches in Texas each year and in showing the seasonal movement from the different producing sections of the State. In addition, they should be helpful to producers and shippers in selecting the best market outlets; to railroad companies and traffic associations in determining the most equitable freight rate schedules; and to cattle associations, livestock financial agencies, and other organizations in studying the economic position and the trend of the cattle industry in Texas.

⁵To Mr. H. H. Schutz and his assistants, Messrs. Gustave Burmeister and F. E. Finley, goes the credit for working out and keeping up this method of recording the movement of livestock to and from Texas. Because of the limited amount of funds and the pressure of their other duties, they have been unable to publish an analysis of these movements. Nevertheless, their many suggestions have been invaluable in the preparation and analysis of this material. The writer is deeply indebted to them and appreciates their assistance.

The completeness of this five-year record was made possible only through the full coöperation of the railroad officials and over fifteen hundred station agents of Texas railroads. They have displayed an unusual coöperative spirit by their willingness and faithfulness in submitting these regular reports.

LIVESTOCK DISTRICTS OF TEXAS

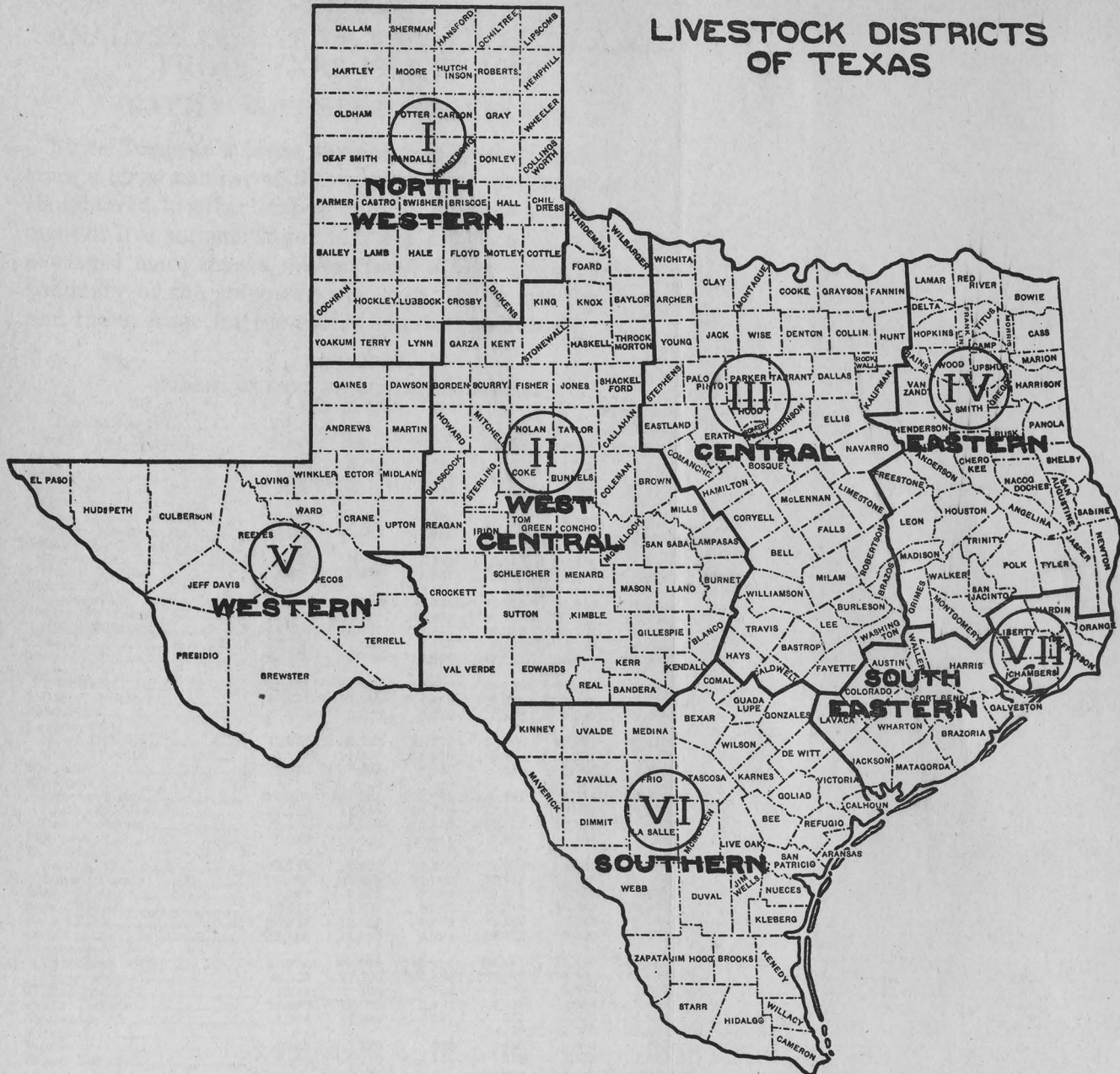


FIGURE 1

Section II

ANALYSIS OF CATTLE SHIPMENTS TO AND FROM TEXAS 1923 TO 1927

CATTLE MOVEMENT FROM TEXAS

Since Texas is a large surplus beef-producing area and since a large number of the surplus cattle are fattened and slaughtered in other states, there is a heavy annual movement of live animals from the State, a movement which has averaged more than a million head a year since 1923. A summary of the shipments for each of the last five years and the average for the period is given in Table 1.

TABLE 1
NUMBER OF CATTLE SHIPPED FROM TEXAS
1923 TO 1927

Destination by States and Markets	1923	1924	1925	1926	1927	Five-Year Average 1923-1927
Alabama	1,075	1,174	276	24	178	545
Arizona	1,396	703	1,618	3,048	4,159	2,185
Arkansas	631	1,201	299	692	1,455	856
California:						
Los Angeles	24,894	22,328	15,495	17,562	10,967	18,249
Other Points	12,514	15,287	21,046	18,165	12,522	15,907
Colorado:						
Denver	11,922	6,733	2,392	3,962	14,406	7,883
Other Points	4,637	2,984	13,997	6,960	13,007	8,317
Illinois:						
Chicago	5,690	8,228	3,635	5,370	11,815	6,948
East St. Louis	52,691	55,117	19,261	37,798	22,333	37,440
Other Points	33,465	18,567	21,407	14,053	23,705	22,239
Indiana	14,432	7,562	4,163	2,594	4,157	6,582
Iowa	27,385	18,054	15,890	17,753	23,089	20,434
Kansas:						
Wichita	72,951	84,610	68,952	46,220	74,440	69,434
Other Points	157,737	179,589	264,968	178,281	273,380	210,791
Kentucky	658	2,073	2,075	1,183	6,009	2,400
Louisiana:						
New Orleans	45,064	53,792	41,355	42,000	34,951	43,432
Other Points	7,167	14,324	12,925	3,942	1,526	7,977
Michigan	1,314	569	1,337	819	3,765	1,561
Missouri:						
Kansas City	420,334	357,141	202,655	189,393	216,356	277,176
South St. Joseph	52,047	53,147	23,419	10,381	10,474	29,894
Other Points	21,594	12,170	14,345	20,612	17,398	17,224
Montana	1,630	-----	5,641	2,928	463	2,132
Nebraska:						
Omaha	23,716	26,535	9,129	1,699	4,449	13,105
Other Points	20,779	22,531	19,963	21,048	25,280	21,920
New Jersey	7,037	7,613	3,299	3,524	2,305	4,756
New Mexico	13,926	9,804	8,768	12,785	16,882	12,433
New York	5,836	12,550	5,574	3,322	8,148	7,086
Ohio	13,692	11,099	8,094	10,071	7,300	10,051
Oklahoma:						
Oklahoma City	43,978	59,563	43,822	39,581	33,490	44,087
Other Points	96,879	97,900	207,888	133,016	219,425	151,022
Pennsylvania	1,249	180	1,753	3,122	2,976	1,856
South Dakota	11,830	11,023	2,497	4,399	4,624	6,874
Tennessee	2,134	1,088	307	521	5,890	1,988
Virginia	-----	-----	-----	52	5,753	1,161
Wyoming	1,545	1,170	936	409	404	893
Other States	1,923	2,219	1,474	789	1,844	1,650
Total Movement from Texas	1,215,752	1,178,628	1,070,655	858,078	1,119,325	1,088,488

This condensed statement shows that Texas cattle were shipped to more than a dozen of the leading livestock markets, to 43 states, and to Canada, Cuba and Mexico.

Railroad records do not give the ultimate destinations of all the cattle shipped, because many of them are re-billed from the original destination to some other market, grazing area, or feeding section. Therefore, Texas cattle lose their identity after they are unloaded unless they have been billed to some market center with stop-over privileges en route. This method of billing ordinarily is used only when the freight rate is less than both the separate stock rate to the grazing or feeding area and the beef rate on to the market center. The large increase in shipments of Texas cattle to grazing areas in Kansas and Oklahoma during the last five years indicates that many producers have found it more advantageous to ship direct to these sections on the straight stock rate (approximately 75 per cent of the beef rate) and later to market on the beef rate from the feeding point rather than to bill direct to one of the markets on the beef rate with feed-in-transit privileges.¹

A large number of Texas cattle sent direct to the primary markets are sold as stockers or feeders and are re-shipped to grazing areas or to feed lots. Likewise, some Texas shippers often bill their cattle to some Northern market with stop-over privileges at Fort Worth, where the cattle frequently are sold. On the other hand, many cattle have been billed originally to Fort Worth, the purchaser changing the billing and re-shipping them to some other market.

These practices, therefore, make it difficult to trace all the cattle shipments to the final destinations or even to reconcile the discrepancies found between the different sources of livestock movements. Nevertheless, Texas shippers are interested primarily in knowing the initial outlets for their cattle, and these railroad records furnish this information more completely than any other source.

¹For further distinction between the stock and beef rate, and the states to which the two rates apply, see page 171.

CATTLE SHIPMENTS FROM TEXAS

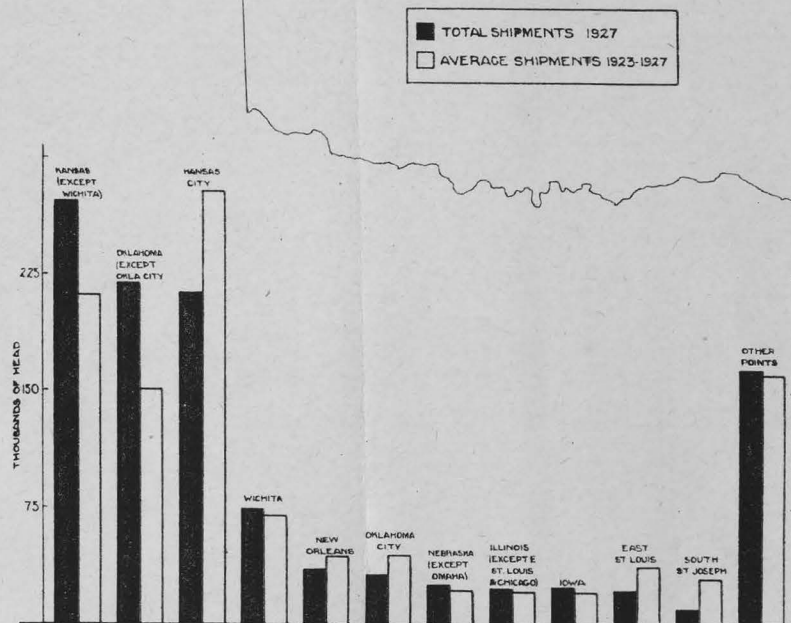


FIGURE 2

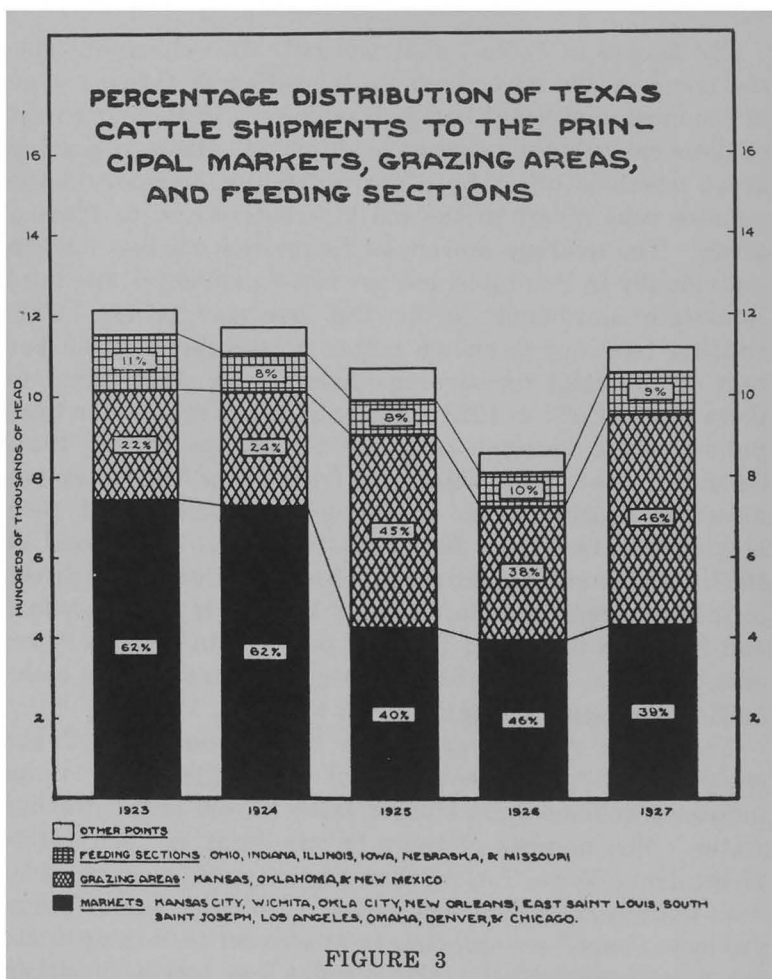
A comparison of the 1927 shipments with the average since 1923 from Texas to the principal out-of-state outlets is made in Figure 2.

TRENDS OF TEXAS CATTLE SHIPMENTS

The figures in Table 1 show not only the volume but also the trend of the movements to the different outlets. One of the most significant trends brought out in the movement of these cattle is the increase in shipments direct to grazing areas which is offset by a corresponding decrease in the number sent direct to the market centers and to feeding areas. The average movement to the ten markets, shown individually in this table, comprised 50 per cent of the total interstate movement during this five-year period. This shifting tendency is shown better by the fact that 62 per cent of the total forwardings from Texas went direct to these ten markets in 1923 while only 38 per cent of the total number were received at these stockyards during 1927. Of the total interstate shipments from Texas, the movement direct to grazing areas in Oklahoma, Kansas, and New Mexico increased from 22 per cent in 1923 to 46 per cent in 1927. At the same time, the number of cattle shipped direct to feeding areas in Ohio, Indiana, Illinois, Iowa, Nebraska, and Missouri decreased from 11 per cent in 1923 to 9 per cent in 1927. The trends of these three movements since 1923 are presented graphically in Figure 3.

The heavy relative decline in the movement of Texas cattle direct to the central markets is attributed to the increased demand from stocker cattle buyers in the grazing states. The number of these buyers securing their cattle direct from Texas rather than at the market centers has been increasing during this period. Likewise, many Texas producers have been shipping their own cattle to these areas for further fattening. The practice has increased either through the desire of operators wanting to put a better finish on their cattle before selling or because of the necessity for securing a more adequate source of feed supply on account of over-grazing or drought conditions in Texas.

These markets, however, receive the bulk of these cattle eventually from the grazing sections, but they are not classed as Texas cattle on the stockyards' records. The decline in the movement direct to the feeding states is



largely accounted for by the changed practice of feeder buyers. They now secure a larger proportion of their supply from Texas cattle which had been sent previously to grazing areas in Oklahoma and Kansas. Northern feeder

buyers say that the Texas cattle, after having grazed in these states for several months, adapt themselves to the northern climate more quickly than do those obtained direct from Texas ranges.

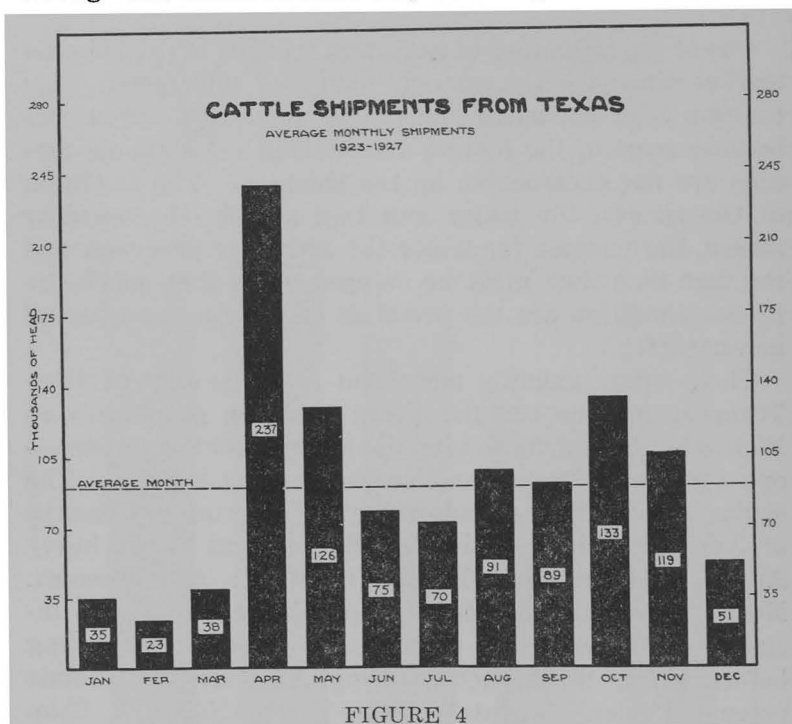
SEASONAL MOVEMENT OF CATTLE SHIPMENTS FROM TEXAS

One of the difficulties of adjusting the flow of cattle to the market demand is the seasonal nature of shipments. This problem is of particular concern to range cattle producers because some of the factors determining the shipping seasons are not controllable by the shippers. The condition of the ranges, the water and feed supply, the breeding season, the purpose for which the cattle are produced, and the fact that they must be shipped when they reach the proper condition are the principal causes for the seasonal movements.

The average monthly movement of cattle shipped from Texas during the last five years is shown graphically in Figure 4. Two definite seasonal movements are present—one during the spring and another during the fall. The spring shipments are made principally during the months of April and May. More than 60 per cent of the heavy April movement go to Kansas, Oklahoma, and Missouri. Most of the cattle are steers shipped to grazing areas principally in Kansas and Oklahoma for further fattening before going to market. During May, as the climate becomes milder, the states farther north—Nebraska, Colorado, South Dakota, and Montana—begin to receive grass cattle from Texas, and shipments to these areas form a part of the May movement.

The fall movement begins in August and continues through November, reaching the peak in October. Approximately one-half of the heavy volume during October is steers. The other half is divided about evenly between cows and calves. The major portion of the cattle is destined either to some market or to some grazing or feeding area in Missouri, Kansas, Oklahoma, Illinois, or Iowa.

These seasonal characteristics apply only to cattle movements direct to other states. The best index of seasonal variation of intrastate shipments is the receipts at the Fort Worth market. Most of this market's receipts are Texas cattle and more than one-half of all Texas cattle pass through this market before they are slaughtered. The aver-



age monthly receipts at Fort Worth since 1920 are shown in Figure 9. The principal shipping seasons for each of the classes of cattle to the individual markets and states are given in the succeeding sections.

THE PRINCIPAL MARKET OUTLETS FOR TEXAS CATTLE

The chief markets for direct shipments of Texas cattle, in order of their importance, are: Fort Worth, Kansas City, Wichita, Oklahoma City, New Orleans, East St. Louis, South St. Joseph, Los Angeles, Denver, Omaha, and Chicago.

The movement to Fort Worth is discussed in the District Analysis of Central Texas, which includes this market. Only the out-of-state markets are considered in this section.

The principal grazing and feeding areas which receive Texas cattle are: Kansas, Oklahoma, Illinois, Iowa, Nebraska, Missouri, California, New Mexico, Ohio, and Colorado.

Movement to the Kansas City Market.—Kansas City has received more cattle direct from Texas than any other market except Fort Worth. An annual average of 277,176 head or approximately 26 per cent of all the cattle shipped out of Texas since 1923 were billed to the Kansas City Stockyards. Over one-half of this movement originated in District I, the Panhandle section of Texas. The district origins of all Texas cattle billed to this market during 1927 and the average since 1923 are shown in Table 2.

TABLE 2
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE KANSAS CITY MARKET

District Origin	Number of Head Billed Direct to — Kansas City —		Percentage Distribution — by Districts —	
	1927	5-Yr. Ave. 1923–1927	1927	5-Yr. Ave. 1923–1927
I. Northwestern ..	119,285	143,985	55.1	52.0
II. West Central ..	29,073	29,757	13.4	10.7
III. Central	37,454	40,128	17.3	14.5
IV. Eastern	590	793	.3	.3
V. Western	9,472	27,214	4.4	9.8
VI. Southern	19,939	33,926	9.2	12.2
VII. Southeastern ..	543	1,373	.3	.5
Total Movement from Texas to Kansas City, Mo.	216,356	277,176	100.0	100.0

The Kansas City receipts of cattle direct from Texas have decreased from 420,334 head, or approximately 35 per cent of all cattle shipped out of Texas in 1923, to 216,356 head, or only 19 per cent of the 1927 shipments. The decrease of nearly 50 per cent reflects the growing tendency of cattlemen to ship Texas cattle to grazing and feeding areas before sending them to market. Approximately 43 per cent

of the cattle in 1927 were steers, 34 per cent cows, 21 per cent calves, and 2 per cent heifers. About 44 per cent of the steer shipments were made in May, June, and October. Except for the heavy fall movement, with October as a peak, cow shipments to Kansas City were fairly uniform during the year. Calf shipments, likewise, started during the latter part of August and continued through a part of December, November being the peak month.

Movement to the Wichita Market.—The Wichita market has received an annual average of 69,434 head, or slightly over 6 per cent of all the cattle shipped out of Texas direct since 1923. Unlike the direct movement to most markets, shipments to Wichita have maintained a fairly steady level over the past five years. The Wichita receipts of Texas cattle fell off in 1926, but the total shipments from the State that year also were considerably below normal.

The Wichita market has relied upon District I for the bulk of its receipts from Texas. The origin of all cattle receipts direct from Texas is presented by districts in Table 3.

TABLE 3
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE WICHITA MARKET

District Origin	Number of Head Billed Direct to — Wichita —		Percentage Distribution — by Districts —	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	31,962	30,137	42.9	43.4
II. West Central...	9,193	13,722	12.3	19.8
III. Central	4,291	5,279	5.8	7.6
IV. Eastern .....	.....	70	.....	.1
V. Western	28,784	19,351	38.7	27.9
VI. Southern	210	794	.3	1.1
VII. Southeastern ..	.....	82	.....	.1
Total Movement from Texas to Wichita, Kan.	74,440	69,435	100.0	100.0

Approximately three-fourths of the cattle shipped direct from Texas to the Wichita market during 1927 were divided

equally between steers and cows. Most of the steer movement took place in the spring and fall; April was the largest shipping month while November ranked second. The peak of the cow shipments occurred in November, but the other fall months and April and May also showed heavy movements. The shipment of calves comprised 21 per cent of the total; over one-half of these left Texas in November and December.

Movement to the Oklahoma City Market.—The Oklahoma City market ranked fourth among the markets for Texas cattle during the past five years. Receipts have averaged 44,087 head each year, or about 4 per cent of the direct interstate shipments since 1923. The receipts of Texas cattle during the last three years, however, have been declining; last year, only 33,490 head, or 3 per cent of the total movement were shipped direct to Oklahoma City from Texas.

Approximately one-half of these shipments originated in District I, Northwestern Texas. All the district origins of this movement are shown in Table 4.

TABLE 4
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE OKLAHOMA CITY MARKET

District Origin	Number of Head Billed Direct to Oklahoma City		Percentage Distribution by Districts	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	21,885	21,606	65.4	49.0
II. West Central....	3,985	6,837	11.9	15.5
III. Central	4,728	9,800	14.1	22.2
IV. Eastern .....	.....	85	.....	.2
V. Western	77	107	.2	.3
VI. Southern	2,815	5,377	8.4	12.2
VII. Southeastern ..	.....	275	.....	.6
Total Movement from Texas to Oklahoma City, Okla.....	33,490	44,087	100.0	100.0

Cows and bulls comprised about 47 per cent of the cattle shipped to this market during 1927. Steers made up 28 per cent and calves 19 per cent of the total movement. Only

a few heifers were shipped. The heavy steer movement occurred in January, May, June, and July, while most of the cows went to this market from July to December. The big calf shipping season was in the late fall months.

Movement to the New Orleans Market.—The New Orleans market has handled approximately the same volume of Texas cattle since 1923 as Oklahoma City, or around 4 per cent of the total shipments from the State. Both of these markets have experienced downward trends during the past five years; but since the decline to Oklahoma City has been greater, the New Orleans receipts of Texas cattle for the last two years have exceeded the Texas movement direct to the Oklahoma City stockyards.

New Orleans is an important outlet for cattle from District VI, Southern Texas. An average of nearly twenty-five thousand head, or 57 per cent of the annual movement during the last five years originated in this district. District III supplied 21 per cent of the total, most of which came from Fort Worth. Table 5 shows the district origin of Texas cattle shipped to New Orleans during 1927 and the five-year average since 1923.

TABLE 5
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE NEW ORLEANS MARKET

District Origin	Number of Head Billed Direct to New Orleans		Percentage Distribution by Districts	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..		128		.3
II. West Central ..	18	310		.7
III. Central	3,310	9,093	9.5	20.9
IV. Eastern	286	388	.8	.9
V. Western	119	1,409	.4	3.3
VI. Southern	26,046	24,730	74.5	56.9
VII. Southeastern ..	5,172	7,374	14.8	17.0
Total Movement from Texas to New Or- leans, La.	34,951	43,432	100.0	100.0

New Orleans is an important calf market. Over 93 per cent of the 1927 receipts from Texas were calves. Although

these shipments were heaviest during the spring and summer months, they were fairly regular throughout the year. The movement during 1927 never fell below 1,000 head or went above 4,100 head during any month. This more orderly movement was due, in part, to the method of selling calves at New Orleans. Only a limited demand exists there and many shippers are advised by the commission agents when to ship.

Movement to the East St. Louis Market.—According to the average annual cattle movement from Texas since 1923, East St. Louis is the sixth ranking market. The yearly average of 37,400 head sent direct to this market is slightly over 3 per cent of the total shipments from Texas. This five-year average, however, is not representative of present conditions because of the downward trend in shipments during this period. Receipts have decreased from 52,691 head or 4 per cent of the movement in 1923 to only 22,333 head or less than 2 per cent of the total shipments in 1927. The decrease of direct shipments to this market, like those to most of the other markets, was offset by increases in movements to grazing areas for further fattening.

East St. Louis is an important outlet for South Texas cattle. Over one-half of the Texas receipts at the National Stockyards during the last five years originated in District VI. District III also showed a heavy movement, the bulk of which was forwarded from the Fort Worth market. The district origin of Texas shipments to this market are shown in Table 6.

Over 75 per cent of the Texas shipments to East St. Louis during 1927 were steers, most of which moved in April, May, June, October, and November. The other 25 per cent were divided equally between cows and calves. Most of the cows were shipped in January, May, June, September, and October, while the heavy calf shipping months were May, October, and November.

Movement to the South St. Joseph Market.—An annual average of 29,894 cattle have been billed direct to the South St. Joseph Stockyards by Texas railroads since 1923. The

trend of the shipments to this market, like that to several of the other markets, has been downward during this period. The number decreased from 52,047 head in 1923 to 10,474 head in 1927.

TABLE 6
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE EAST ST. LOUIS MARKET

District Origin	Number of Head Billed Direct to		Percentage Distribution	
	—East St. Louis—		—by Districts—	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	1,780	1,788	8.0	4.8
II. West Central...	1,026	1,736	4.6	4.6
III. Central	2,773	10,584	12.4	28.3
IV. Eastern	894	1,152	4.0	3.1
V. Western	1,677	1,614	7.5	4.3
VI. Southern	14,124	20,432	63.2	54.6
VII. Southeastern ..	59	134	.3	.3
Total Movement from Texas to East St. Louis, Ill.....	22,333	37,440	100.0	100.0

Over one-half of the cattle billed to South St. Joseph from Texas since 1923 came from the Panhandle section. The district origin of shipments for the average of this period and for 1927 are presented in Table 7. These figures show not only the sources of shipments but also the shifting tendencies between the different districts.

TABLE 7
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
THE SOUTH ST. JOSEPH MARKET

District Origin	Number of Head Billed Direct to		Percentage Distribution	
	—South St. Joseph—		—by Districts—	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	5,074	15,784	48.5	52.8
II. West Central...	1,175	3,730	11.2	12.5
III. Central	2,426	4,502	23.2	15.1
IV. Eastern	33	257	.3	.9
V. Western	945	4,316	9.0	14.4
VI. Southern	821	1,238	7.8	4.1
VII. Southeastern ..	-----	67	---	.2
Total Movement from Texas to South St. Joseph, Mo.....	10,474	29,894	100.0	100.0

Steer shipments in 1927 comprised 62 per cent of the total movement to this market from Texas. Forwardings were greatest during May, July, and August. Approximately 20 per cent were cows. Except for the winter months, billings were fairly well distributed over the entire year. Calves made up 15 per cent of the total, over one-half being received in October alone.

Movement to the Los Angeles Market.—Los Angeles has received an annual average of 18,249 head of Texas cattle during the last five years. The movement to this market also has been declining over this period. The number decreased from 24,894 head in 1923 to 10,967 head in 1927.

District V, Western Texas, contributed around 85 per cent of the average movement to the Pacific Coast market. During 1927, approximately 43 per cent were calves, over three-fourths of which were billed in January, February, and March. Cow shipments made up one-third of the movement. The first quarter and November were the heavy shipping periods for cows. Shipments of steers during January, March, and November accounted for the balance of the cattle movement to the Los Angeles market.

Movement to the Denver Market.—Denver ranks ninth as a market for Texas cattle. The five-year average of only 7,883 head is small because shipments in 1925 and 1926 were very light. In 1927, however, receipts of 14,406 head exceeded the number forwarded to either South St. Joseph or Los Angeles.

This market received cattle principally from the Northwestern district, although the Central and Western districts also contributed. Approximately 44 per cent of the 1927 movement were cows shipped during May and June and from August to December. Steers comprised 38 per cent of the Texas cattle received at the Denver yards. Most of these shipments were made in April, May, and June. Calf and heifer shipments made up the other 18 per cent of the movement. The majority of them were received in October and November.

Movement to the Omaha Market.—The movement of Texas cattle direct to the Omaha market has shown a downward trend since 1923. While the annual average for the last five years was 13,105 head, the number billed in 1927 was only 4,449 head, as compared with 23,716 head in 1923.

Over 87 per cent of these cattle came from the Northwestern and Central districts. The movement from each district was about equal. During 1927 over 46 per cent of the cattle shipments were steers and most of them were shipped during April, May, and July. Approximately 30 per cent of the movement were cows, the bulk of which were received at Omaha in September and October. Shipments of heifers during July and calves during May and June made up the other Omaha receipts of cattle direct from Texas.

Movement to the Chicago Market.—While the Chicago market received an annual average of only 6,948 head during the last five years, it is one of the few markets which has shown an upward trend since 1923. Shipments increased from 5,690 head in 1923 to 11,815 head in 1927. This increase was due primarily to the high prices paid for heavy finished steers during the latter part of 1927. The majority of cattle going to Chicago from Texas are good grass and cottonseed cake or corn-fed animals. Approximately 62 per cent of these cattle were shipped from District III, most of which were fed cottonseed cake or corn on grass in localities west and southwest of Fort Worth. The Northwestern district supplied 32 per cent of this movement.

Steer loadings, which comprised 60 per cent of the total movement in 1927, were billed to this market from May to October; July and October were the heavy months. Over two thousand calves were sent to Chicago in 1927 direct from Texas. The majority of them were shipped in October; the rest were sent in March, April, September, November, and December. Nearly two thousand cows were shipped there in July, August, September, and October.

Movement to "Other Points" Kansas.—The grazing and feeding areas of Kansas have received over 19 per cent of the direct cattle movement from Texas since 1923. The annual average for this period was 210,791 head. There has been a sharp upward trend, however, in this movement. The number increased from 157,737 head in 1923, or only 13 per cent of the total shipments from Texas, to 273,380 head in 1927, or over 24 per cent of the interstate movement.

The district origin of these shipments for the average of the last five years and for 1927 are shown in Table 8.

District	Origin	Number of Head Billed Direct to —"Other Points" Kansas—		Percentage Distribution —by Districts—	
		1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I.	Northwestern ..	145,882	112,990	53.4	53.6
II.	West Central.....	44,544	35,220	16.3	16.7
III.	Central	21,442	18,285	7.8	8.7
IV.	Eastern	673	1,017	.2	.5
V.	Western	33,575	23,842	12.3	11.3
VI.	Southern	25,375	15,723	9.3	7.5
VII.	Southeastern ..	1,889	3,714	.7	1.7
Total Movement from Texas to "Other Points" Kansas.....		273,380	210,791	100.0	100.0

*"Other Points" Kansas includes all points in Kansas except the Wichita market.

During 1927, steers comprised 71 per cent of the Kansas receipts of Texas cattle. Of the heavy steer movements, 64 per cent were shipped in April and May, and 21 per cent during the months of October and November. Nearly 37,000 cows and 32,000 calves were billed to Kansas grazing areas from Texas during 1927. The bulk of both of these classes also was shipped in April and May and in October and November. The months immediately preceding and following these peak seasons also had scattered shipments.

Movement to "Other Points" Oklahoma.—"Other Points" Oklahoma is the second largest grazing area for Texas cattle. These points have received an annual average of 151,022 head, or 14 per cent of the cattle shipped from Texas since 1923. The movement to this territory, like that to Kansas, has been increasing rapidly during this period. During 1923, 96,879 head, or only 8 per cent of the total interstate movement were shipped to these points, while the same areas received 219,425 head, or 20 per cent of the total shipments during 1927. More cattle were sent to grazing areas in Oklahoma during 1927 from Texas than were billed direct even to the Kansas City market.

The origin of these shipments is shown by districts in Table 9. District III, Central Texas, is the largest shipping section, due primarily to the movement of stocker and feeder cattle from the Fort Worth market. These cattle, however, came to Fort Worth from various sections of the State and not from District III alone.

TABLE 9

DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
"OTHER POINTS" OKLAHOMA*

District Origin	Number of Head Billed Direct to —"Other Points" Oklahoma—		Percentage Distribution —by Districts—	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	41,379	18,337	18.9	12.2
II. West Central....	43,658	40,169	19.9	26.6
III. Central	61,578	41,855	28.1	27.7
IV. Eastern	1,487	4,197	.7	2.8
V. Western	25,959	20,866	11.8	13.8
VI. Southern	39,123	17,093	17.8	11.3
VII. Southeastern ..	6,241	8,505	2.8	5.6
Total Movement from Texas to "Other Points" Oklahoma..	219,425	151,022	100.0	100.0

*"Other Points" Oklahoma includes all points in Oklahoma except the Oklahoma City market.

Approximately 56 per cent of the cattle movements to Oklahoma pastures during 1927 were steers, 31 per cent cows, 13 per cent calves and heifers. While most of the

steer and cow shipments occurred in April and October, cows were shipped more uniformly throughout the year than were steers. The majority of the calves were loaded during the months of April, October, November, and December.

Movement to "Other Points" Illinois.—"Other Points" Illinois has been an important outlet for Texas cattle during the last five years. An annual average of 22,239 head has been sent direct to these points from Texas. This movement differs from that to Kansas and Oklahoma in that practically all the cattle billed to Illinois are destined for feed lots, while most of those shipped to the latter states are placed on grass. The origins of those shipments were Districts I, II, and V, where the highest quality of feeder cattle are produced. The district origin is shown in Table 10.

TABLE 10
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
"OTHER POINTS" ILLINOIS*

District Origin	Number of Head Billed Direct to "Other Points" Illinois		Percentage Distribution by Districts	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	8,057	8,912	34.0	40.1
II. West Central...	5,073	3,592	21.4	16.2
III. Central	1,202	1,536	5.1	6.9
IV. Eastern	32	97	.1	.4
V. Western	9,282	7,648	39.2	34.4
VI. Southern	59	354	.2	1.6
VII. Southeastern ..	-----	100	----	.4
Total Movement from Texas to "Other Points" Illinois.....	23,705	22,239	100.0	100.0

*"Other Points" Illinois includes all points in Illinois except the East St. Louis and Chicago markets.

Over one-half of the cattle sent direct to Illinois feed lots from Texas in 1927 were calves, the majority of which were shipped in November. May and October also were heavy shipping months. Approximately 37 per cent of the total movement were steers which were forwarded during May,

June, October, and November. The other shipments consisted of heifers and cows. The former class was sent to Illinois during April, June, October, and November, while most of the cows were billed during May, July, and September.

Movement to "Other Points" Nebraska.—The movement of cattle from Texas to points in Nebraska during the last five years comprised 2 per cent of the total interstate shipments. The trend of the movement, like that to the other grazing areas, has been upward during this period.

Most of these cattle originated in Districts I and V, the two extreme western sections of the State. The distribution of the entire movement is shown in Table 11.

TABLE 11
DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
"OTHER POINTS" NEBRASKA*

District Origin	Number of Head Billed Direct to "Other Points" Nebraska—		Percentage Distribution by Districts—	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	12,189	8,831	48.2	40.3
II. West Central...	1,451	1,359	5.7	6.2
III. Central	1,061	1,767	4.2	8.1
IV. Eastern	576	206	2.3	.9
V. Western	10,003	9,631	39.6	43.9
VI. Southern	-----	126	---	.6
VII. Southeastern ..	-----	-----	---	---
Total Movement from Texas to "Other Points" Nebraska...	25,280	21,920	100.0	100.0

*"Other Points" Nebraska includes all points in Nebraska except the Omaha market.

Approximately 51 per cent of the 1927 movement were steers, 23 per cent heifers, 15 per cent calves, and 11 per cent cows. The bulk of these cattle were shipped during May. June, October, and November also were heavy shipping months.

Movement to Iowa.—Although some Texas cattle are shipped direct to Sioux City, no separate records are kept for this market. All cattle billed to Iowa are grouped

together, since the bulk of the movement is destined for feed lots.

An annual average of 20,434 head of cattle has been shipped direct to Iowa from Texas since 1923. The trend of the movement, however, has been decreasing during this period. Records show that 27,385 head were sent there in 1923, while only 23,089 were shipped to Iowa points from Texas in 1927.

The shipments to Iowa, like those to Illinois, were good quality feeder stock and the majority of them originated in Districts I and V, Northwestern and Western Texas. Table 12 shows the district origin of the movements to Iowa.

District Origin	Number of Head Billed Direct to Iowa		Percentage Distribution by Districts	
	1927	5-Yr. Ave. 1923-1927	1927	5-Yr. Ave. 1923-1927
I. Northwestern ..	4,789	5,983	20.7	29.3
II. West Central....	2,651	2,126	11.5	10.4
III. Central	3,328	2,307	14.4	11.3
IV. Eastern	867	762	3.8	3.7
V. Western	11,427	9,217	49.5	45.1
VI. Southern	27	20	.1	.1
VII. Southeastern ..	-----	19	----	.1
Total Movement from Texas to Iowa.....	23,089	20,434	100.0	100.0

The shipments to Iowa during 1927 were divided as follows: steers 44 per cent, calves 39 per cent, cows 14 per cent, and heifers 3 per cent. The spring movement began in March and ran through July. The fall movement extended from September to December. The high month for steers and cows was May, while the largest calf-shipping month was November.

Movement to "Other Points" Missouri.—An average of 17,224 head of Texas cattle has been sent direct to "Other Points" Missouri each year since 1923. This movement, like that to several other feeding areas, has fallen off during

the five-year period. The number decreased from 21,594 head in 1923 to 17,398 head in 1927.

Missouri feeders have secured most of their Texas cattle from the western part of the State. The district origin of these shipments is shown in Table 13.

TABLE 13

DISTRICT ORIGIN OF TEXAS CATTLE SHIPMENTS DIRECT TO
"OTHER POINTS" MISSOURI*

District Origin	Number of Head Billed Direct to ("Other Points" Missouri— 5-Yr. Ave.		Percentage Distribution (by Districts— 5-Yr. Ave.	
	1927	1923-1927	1927	1923-1927
I. Northwestern ..	7,489	5,275	43.0	30.6
II. West Central ..	3,570	4,213	20.5	24.4
III. Central	1,934	2,254	11.1	13.1
IV. Eastern	436	567	2.5	3.3
V. Western	3,472	2,318	20.0	13.5
VI. Southern	497	2,439	2.9	14.2
VII. Southeastern ..	—	158	—	.9
Total Movement from Texas to "Other Points" Missouri ..	17,398	17,224	100.0	100.0

*"Other Points" Missouri includes all points in Missouri except the Kansas City and South St. Joseph markets.

Steers comprised 46 per cent of the 1927 movement. They were shipped largely in two definite seasonal movements—the first coming in April, May, and June, and the second in September, October, and November. Calf shipments made up 36 per cent of the total number, most of them moving during September, October, and November. Cows made up 17 per cent of the movement, the majority of which were sent to Missouri points during the fall months.

Movement to Other Grazing and Feeding Areas.—Of the smaller outlets for Texas cattle, some have been declining during the last five years while others have been increasing the number of cattle secured direct from Texas.

Movement to California during 1927 was smaller than that during the previous three years. The strong demand for Texas cattle from closer markets and the great hauling

distance accounts for most of this decrease. Then, too, the heavy re-stocking of cattle, following the outbreak of foot and mouth disease and the drought, had subsided. Steers and cows comprised over 95 per cent of the 1927 shipments. The heavy steer movement, comprising 51 per cent of the shipments, occurred during October and November, while the bulk of the cows were shipped in October, November, and December. Nearly 90 per cent of these shipments originated in District V, Western Texas.

The trend of the shipment of feeder cattle to Indiana, Ohio, and South Dakota declined also during the last five years. The transportation costs and the increased demand for Texas cattle from closer states have caused these buyers to purchase their feeder supply elsewhere.

On the other hand, some of the states have been increasing the number of cattle secured direct from Texas. They are Colorado, New Mexico, Tennessee, Kentucky, and Virginia. Over 40 per cent of the cattle sent to "Other Points" Colorado from Texas during 1927 were steers, 35 per cent calves, and 23 per cent cows. Heavy steer shipments were made in April, the rest of the steers and the bulk of the other classes being billed in May, June, and July.

Shipments to New Mexico are different from most others from Texas. When the grass gets short in the bordering districts in Texas, cattle are sent to grazing areas in New Mexico. Later, many of them are transferred back to Texas. Over 54 per cent of the cattle shipped to New Mexico in 1927 were cows, 27 per cent calves, and 18 per cent steers.

Sharp increases have occurred in the movements to Tennessee, Kentucky, and Virginia. Over 17,000 head were sent to these three States in 1927, as compared with only 2,700 head in 1923. These shipments were made largely from Districts I, II, and III. The bulk of these movements was steers destined for the grazing and feeding areas in those states. The heavy shipping season to these points was in the fall months.

CATTLE MOVEMENT INTO TEXAS

THE PRINCIPAL SOURCES OF CATTLE RECEIPTS IN TEXAS

Although Texas is a large surplus cattle producing area, there has been an increasing movement of cattle into the State, especially during 1927. Since 1923, Texas has received annually an average of 126,164 head of cattle from other states. Receipts increased from 68,918 head in 1923 to 215,718 head in 1927. Approximately 90 per cent of these cattle came from four states: New Mexico, Oklahoma, Louisiana, and Arizona. A summary of the state origin of these receipts by years since 1923 and the five-year average movement is given in Table 14.

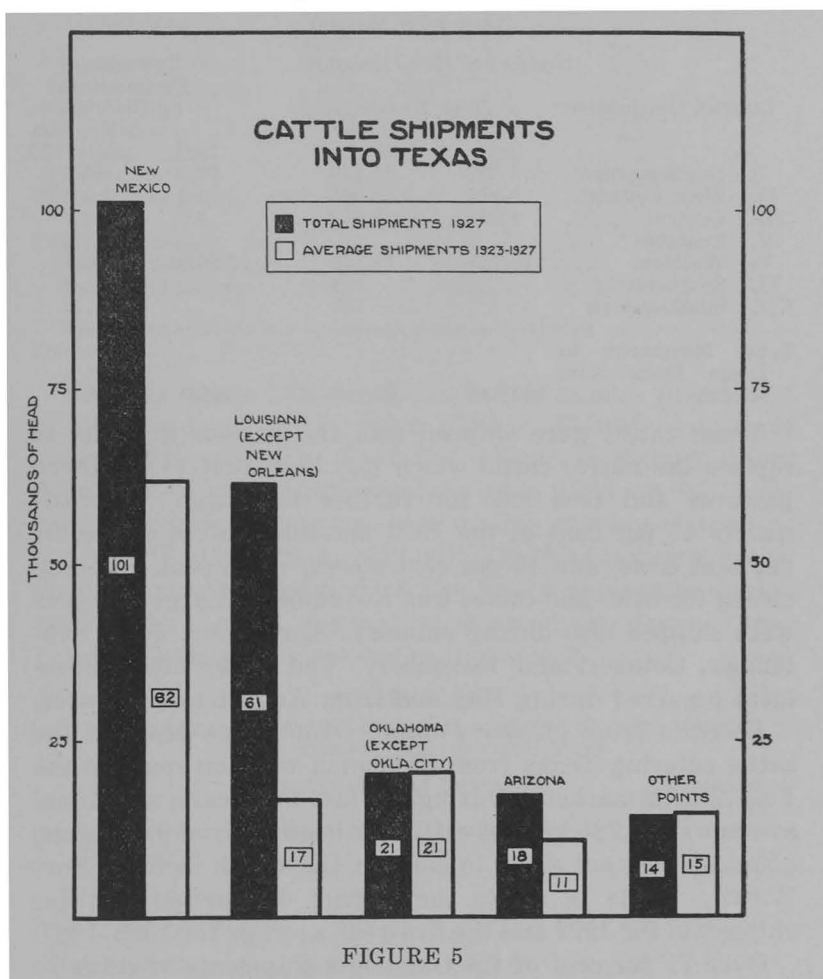
TABLE 14
NUMBER OF CATTLE SHIPPED INTO TEXAS
1923 TO 1927

Origin by States and Markets	1923	1924	1925	1926	1927	Five-Year Average 1923-1927
Arizona	7,322	8,286	9,855	13,651	17,831	11,389
Arkansas	178	683	744	4	894	501
Florida	-----	5,147	253	-----	1,715	1,423
Kansas:						
Wichita	2,525	684	1,941	511	592	1,241
Other Points	6,373	1,153	4,241	1,755	1,775	3,059
Louisiana:						
New Orleans	374	301	-----	-----	676	270
Other Points	2,805	5,254	4,440	11,115	61,493	17,021
Missouri:						
Kansas City	877	1,570	1,097	2,967	175	1,337
South St. Joseph	718	207	66	49	100	228
Other Points	195	183	475	552	653	412
Nebraska:						
Omaha	25	-----	-----	-----	-----	5
Other Points	24	-----	2,666	2,733	96	1,104
New Mexico	17,568	41,747	82,238	68,018	101,338	62,182
Oklahoma:						
Oklahoma City	1,925	2,726	632	968	326	1,315
Other Points	23,835	18,911	26,352	14,248	20,578	20,785
Wisconsin	1,921	256	1,824	1,745	2,187	1,587
Other States	2,153	1,061	1,470	1,555	5,289	2,305
Total Movement to Texas..	68,818	88,119	138,294	119,871	215,718	126,164

Most of the big increase during 1927 originated in Louisiana and New Mexico. The movement from Louisiana resulted from the Mississippi River flood which inundated a large portion of the lowlands of that state. The large increase from New Mexico represents purchases by Texas cattlemen for re-stocking their ranges. Prices were high enough to make it profitable for producers to ship all their

cattle with the exception of breeding stock and very young animals either direct to market or to feed lots.

The relative importance of the states sending cattle to Texas is shown in Figure 5.



Receipts from New Mexico.—New Mexico has supplied 49 per cent of the cattle shipped into Texas since 1923; most of them went to Districts I and V, Northwestern and Western Texas. The destination of this movement is shown

by districts for 1927 and for the average of the last five years in Table 15.

TABLE 15
DISTRICT DESTINATIONS OF CATTLE RECEIVED INTO TEXAS
FROM NEW MEXICO

District Destination	Number of Head Received From		Percentage Distribution	
	— New Mexico —	5-Yr. Ave.	— by Districts —	5-Yr.-Ave.
	1927	1923-1927	1927	1923-1927
I. Northwestern ..	78,557	41,145	77.5	66.2
II. West Central...	2,003	2,031	2.0	3.3
III. Central	4,023	2,632	4.0	4.2
IV. Eastern				
V. Western	16,755	16,125	16.5	25.9
VI. Southern		103	—	.2
VII. Southeastern ..		146	—	.2
Total Movement to Texas from New Mexico	101,338	62,182	100.0	100.0

These cattle were shipped into the various districts to replace the native cattle which had been sent to Northern pastures and feed lots for further fattening. Approximately 47 per cent of the 1927 movement were calves, 37 per cent cows, and 15 per cent steers. The peak shipping month for cows and calves was November. Large numbers were shipped also during January, April, May, June, September, October, and December. The heavy steer movement occurred during May and from August to November.

Receipts from "Other Points" Oklahoma.—Most of the cattle entering Texas from Oklahoma were en route to the Fort Worth market. During the last five years, an annual average of 20,785 head of cattle has been shipped into Texas, about 88 per cent going to District III, which includes Fort Worth. Table 16 shows the district destination of these shipments for 1927 and the five-year average for 1923-1927.

Over 71 per cent of the Oklahoma shipments of cattle to Texas in 1927 were cows, 18 per cent calves, 9 per cent steers, and 2 per cent heifers. Most of the cows were shipped during January and March, and from September to December. The bulk of the calves was loaded out during the fall months, October being the peak month.

TABLE 16
DISTRICT DESTINATIONS OF CATTLE RECEIVED INTO TEXAS
FROM "OTHER POINTS" OKLAHOMA*

District Destination	Number of Head Received From —"Other Points" Oklahoma—		Percentage Distribution —by Districts—	
	5-Yr. Ave.		5-Yr.-Ave.	
	1927	1923-1927	1927	1923-1927
I. Northwestern ..	2,812	1,261	13.7	6.1
II. West Central...	480	395	2.3	1.9
III. Central	16,706	18,381	81.2	88.4
IV. Eastern	455	111	2.2	.5
V. Western	125	222	.6	1.1
VI. Southern	-----	362	---	1.7
VII. Southeastern ..	-----	53	---	.3
Total Movement to Texas from "Other Points" Oklahoma..	20,578	20,785	100.0	100.0

*"Other Points" Oklahoma includes all points in Oklahoma except the Oklahoma City market.

Receipts from "Other Points" Louisiana.—Receipt of 61,493 head of cattle from "Other Points" Louisiana during 1927, resulting from the serious Mississippi River flood, raised the annual receipts since 1923 up to 17,021 head. Approximately one-half of this movement went to the Fort Worth market. District VII, Southeastern Texas, received nearly one-third of the heavy shipments during 1927. The district destination of shipments from "Other Points" Louisiana is presented in Table 17.

TABLE 17
DISTRICT DESTINATIONS OF CATTLE RECEIVED INTO TEXAS
FROM "OTHER POINTS" LOUISIANA*

District Destination	Number of Head Received From —"Other Points" Louisiana—		Percentage Distribution —by Districts—	
	5-Yr. Ave.		5-Yr.-Ave.	
	1927	1923-1927	1927	1923-1927
I. Northwestern ..	54	11	.1	.1
II. West Central...	845	207	1.4	1.2
III. Central	30,071	9,487	48.9	55.7
IV. Eastern	6,073	2,135	9.9	12.5
V. Western	36	94	.1	.6
VI. Southern	3,025	661	4.9	3.9
VII. Southeastern ..	21,389	4,426	34.7	26.0
Total Movement to Texas from "Other Points" Louisiana..	61,493	17,021	100.0	100.0

*"Other Points" Louisiana includes all points in Louisiana except the New Orleans market.

Receipts from Arizona.—Arizona producers have shipped an annual average of 11,389 head of cattle to Texas since 1923. The bulk of these cattle was destined for the ranges in Western and Northwestern Texas, as shown in Table 18.

TABLE 18
DISTRICT DESTINATIONS OF CATTLE RECEIVED INTO TEXAS
FROM ARIZONA

District Destination		Number of Head Received From — Arizona —		Percentage Distribution — by Districts —	
		1927	5-Yr. Ave. 1923-1927	1927	5-Yr.-Ave. 1923-1927
I.	Northwestern ..	4,030	3,569	22.6	31.3
II.	West Central...	60	134	.3	1.2
III.	Central	228	111	1.3	1.0
IV.	Eastern	-----	-----	-----	-----
V.	Western	13,513	7,575	75.8	66.5
VI.	Southern	-----	-----	-----	-----
VII.	Southeastern ..	-----	-----	-----	-----
Total Movement to Texas from Ari- zona		17,831	11,389	100.0	100.0

Approximately 60 per cent of the 1927 shipments were cows, 23 per cent steers, 12 per cent calves, and 5 per cent heifers. The cows were shipped in January, May, June, October, November, and December. Most of the steers entered Texas in May, while the big calf-shipping month was December.

NET MOVEMENT OF CATTLE FROM TEXAS

Heretofore in this study, the shipments of cattle both to and from Texas have been considered separately. The net effect of these movements, however, indicates the importance of the State as a surplus cattle producing area. The annual net outflow has averaged 962,324 head since 1923. The downward trend of this movement has resulted from both a decrease in forwardings and an increase in receipts. The annual movements since 1923 are presented in Table 19.

TABLE 19
NET MOVEMENT OF CATTLE FROM TEXAS
1923 TO 1927

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from Texas.....	1,215,752	1,178,628	1,070,655	858,078	1,119,325	1,088,488
Total Movement of Cattle to Texas.....	68,818	88,119	138,294	119,871	215,718	126,164
Net Outflow.....	1,146,934	1,090,509	932,361	738,207	903,607	962,324
Number Slaughtered at Five Texas Markets.....	883,000	1,072,000	1,090,000	873,000	955,000	974,600
Total Net Disappearance.....	2,029,934	2,162,509	2,022,361	1,611,207	1,858,607	1,936,924

This net movement, however, does not consider the annual increase or decrease in the number retained on farms and ranches. Neither does it include the number slaughtered within the State, nor the death losses. All of these factors must be included in order to measure the normal producing capacity of the State. Statistics on the number of cattle on farms and ranches and the number slaughtered at the six recognized public markets in Texas² have been recorded, but annual data covering local and farm slaughterings together with death losses are not available.³ Assuming that the numbers disposed of through these outlets remain fairly constant from year to year, their influence on the trend of the indicated productive capacity would not be noticeable. The known annual net disappearance, exclusive of these estimates, is shown in Table 19.

The relation between the total number of cattle reported on farms and ranches each year and this annual net disappearance of Texas cattle is given in Table 20. Except during 1926, the percentage of net disappearance remained between 31 per cent and 34.5 per cent of the estimated cattle population. The sharp decline in 1926 resulted from a short calf crop and from the heavy liquidation of cattle during the previous year, which was brought about by the severe drought conditions over a large area of Texas.

²Fort Worth, San Antonio, El Paso, Dallas, Laredo, and Amarillo

³The United States Department of Agriculture estimated the number killed locally in Texas during 1927 at 233,000 head, farm slaughtered at 105,000 head, and death losses at 237,000 head.

TABLE 20

COMPARISON OF THE TOTAL NUMBER WITH THE ANNUAL NET
DISAPPEARANCE OF TEXAS CATTLE
1923 to 1927

Year	Total Number of Cattle on Farms and Ranches at End of Year*	Net Disappearance of Texas Cattle	Per Cent of the Total Number
1923	6,550,000	2,029,934	31.0
1924	6,275,000	2,162,509	34.5
1925	5,900,000	2,022,361	34.3
1926	5,841,000	1,611,207	27.6
1927	5,607,000	1,858,607	33.1
5-Yr. Ave. 1923-1927	6,034,600	1,936,924	32.1

*January 1 Estimates of the United States Department of Agriculture.

CATTLE MOVEMENT FROM MEXICO

Although very little information is available on the movement of cattle across the Mexican border, a considerable number are sent to and brought from that country. Most of them are driven across at one of the ports of entry and then transported to their destinations. The importance of these imports of cattle may be obtained from the record kept by the Bureau of Animal Industry of the United States Department of Agriculture. These figures are not segregated by states but the movement to the United States since 1924 is given in Table 21.

TABLE 21

IMPORTS OF CATTLE FROM MEXICO TO THE UNITED STATES*
1924 TO 1927

Year	Number of Head
1924	72,297
1925	86,089
1926	160,053
1927	160,702
1928 (January to April)	93,067

*Bureau of Animal Industry, United States Department of Agriculture.

The movement has been heavy during the last two years because of the higher prices of cattle. A part of this movement includes importations of animals previously exported to Mexico for grazing without the payment of duty, and also inspected animals passing from one point in Mexico, through the United States, to another point in Mexico.

Section III

DISTRICT ANALYSIS OF TEXAS CATTLE SHIPMENTS, 1923 TO 1927

Because of the size of Texas and because of the wide variation in the type and quality of cattle produced, it is difficult to analyze the movement of cattle to and from the State without breaking down the shipments into smaller and more homogeneous units. These units or districts were worked out by H. H. Schutz, Statistician for the United States Department of Agriculture in Texas in order to facilitate the livestock reporting work of that organization. The railroad records for each of the seven districts are presented in the same manner as were those for the entire state in the preceding section. Since the weights of cattle vary in the different sections of the State, the net movements would be more comparable if they were expressed in pounds of beef instead of in numbers of head. But no sufficiently reliable data are available on the weights of the several classes of cattle by districts. Neither are local and farm-slaughtering figures or death losses available by districts.

District I—Northwestern Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

District I or the northwestern portion of the State is known as a part of the Plains or the Panhandle of Texas. The 40 counties that are included in this territory are shown in Figure I.

This district is one of the most highly developed agricultural sections of Texas. The soil and climatic conditions make the lands very productive and are conducive to a widely diversified farming program. The principal money

and feed crops are wheat, cotton, sorghum grains, oats, and corn. District I is the leading wheat section of the State; the last Census of Agriculture shows that 898,246 acres or 68 per cent of the total harvested acreage of the State were planted in these 40 counties.¹ Grain sorghums also are grown extensively in this district. The Census reported that there were harvested in this part of Texas 1,217,427 acres of sorghum; of these, 637,534 acres or 53 per cent were cut for grain and 579,893 acres or 43 per cent were cut for forage.² The sorghums are especially adapted to this section because of their ability to withstand the long drouths which are not uncommon to the Plains country. Furthermore, the westward movement of cotton acreage has reached the lower portion of District I; the Census shows that 1,425,198 acres or 9 per cent of the State acreage were harvested in this section. Likewise, approximately 162,000 acres of oats and 101,000 acres of corn were harvested in this territory.

Such a combination of crops provides a well-diversified farming program and, in addition, it enables the livestock producers in this district to secure an adequate supply of stock feed in their localities.

CHARACTER OF CATTLE PRODUCTION

Prior to the rapid expansion of the crop acreage in this territory, the cattle industry was conducted primarily on a large scale. With the breaking up of the tillable parts of the large ranches, however, the scale of operations has been reduced considerably. This tendency has brought about one of the two conditions: Either the livestock program has been worked in with the general farming operations or a more intensive livestock program has been adopted. A few operators have been fattening their stock at home instead of sending them to other states for further finishing.

¹United States Census of Agriculture, 1925.

²*Ibid.*

This practice undoubtedly will become more general in this section when the producers learn that their cattle can be finished as well at home as they can in the established feeding areas.

Cattle feeding, however, is a highly specialized business, and it will be developed gradually in this territory. Feeding experiments have been conducted on the comparative feeding value of corn and grain sorghums and cottonseed products by the Texas Agricultural Experiment Station and several other State experiment stations. They have found that a feed ration of grain sorghums, and cottonseed products possesses the approximate equivalent feeding of value of corn.

Even with the rapid encroachment of crop acreage during the last decade, District I is still one of the leading range cattle sections of the State. Approximately 16 per cent of cattle population of the State is located in this area.

The average grade of cattle in this district is very high. Producers have been improving their breeding herds in order to secure the quality of cattle desired by the Northern and Western feeders. Hereford is the predominating breed of cattle throughout this district. It does exceedingly well on the range and is the choice of the majority of feeders and feeder buyers. There are also some herds of Shorthorn cattle in this territory which have given highly satisfactory results.

CATTLE SHIPMENTS FROM NORTHWESTERN TEXAS

In order to show the complete movement of cattle from District I, the shipments since 1923 are summarized in Table 22.

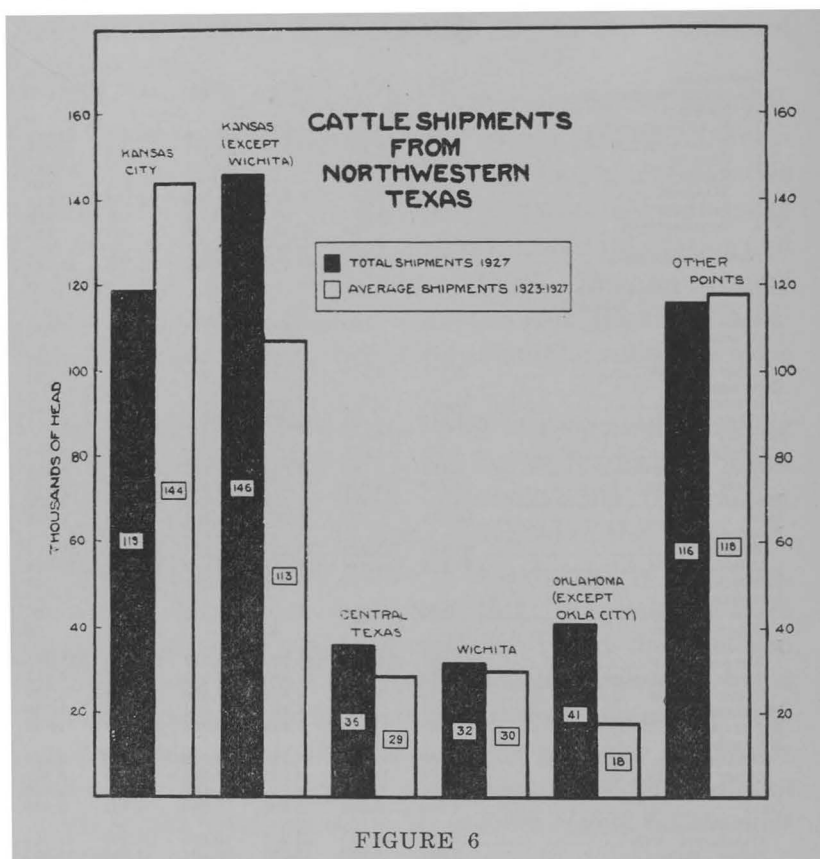
TABLE 22
NUMBER OF CATTLE SHIPPED FROM THE NORTHWESTERN
DISTRICT OF TEXAS
1923 to 1927

Destination	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern*	49,565	42,970	78,298	63,500	88,722	64,611
II. West Central	3,328	5,198	10,964	9,614	11,734	8,167
III. Central	25,458	25,810	30,858	25,955	36,222	28,861
IV. Eastern	48	543	645		562	360
V. Western	4,130	1,615	5,767	2,333	2,359	3,241
VI. Southern	672	2,538	521	495	106	866
VII. Southeastern		354	131	26	213	145
Total Intrastate	33,636	36,058	48,886	38,423	51,196	41,640
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona	629	30	208	194	28	218
California:						
Los Angeles	949	36	49	346	362	348
Other Points	2,277	3,128	212	458	617	1,338
Colorado:						
Denver	6,245	6,257	1,073	1,989	10,685	5,250
Other Points	1,917	2,024	7,816	807	2,313	2,976
Illinois:						
Chicago	4,465	1,915	73	857	3,731	2,208
East. St. Louis	2,459	712	3,654	335	1,780	1,788
Other Points	14,229	6,949	10,877	4,450	8,057	8,912
Indiana	3,914	358	425	932	1,499	1,426
Iowa	10,933	5,237	5,495	3,462	4,789	5,983
Kansas:						
Wichita	31,161	28,992	35,218	23,354	31,962	30,137
Other Points	91,523	94,846	136,659	96,039	145,882	112,990
Kentucky		70	464	520	1,662	543
Louisiana:						
New Orleans	523	119				128
Other Points			40			8
Missouri:						
Kansas City	208,631	180,570	120,708	90,732	119,285	143,985
South St. Joseph	23,378	30,121	15,895	4,454	5,074	15,784
Other Points	5,718	6,160	4,551	2,456	7,489	5,275
Michigan	1,262	228	1,197	502	2,006	1,039
Montana	38		5,641	2,896	463	1,808
Nebraska:						
Omaha	11,050	10,220	4,520	1,019	2,335	5,829
Other Points	5,006	12,023	4,944	9,996	12,189	8,832
New Mexico	6,004	2,962	3,711	5,861	3,176	4,343
Ohio	6,090	2,292	2,895	2,209	1,705	3,038
Oklahoma:						
Oklahoma City	18,608	23,514	24,338	19,684	21,885	21,606
Other Points	7,387	9,259	13,237	20,424	41,379	18,337
South Dakota	10,869	6,168	426	2,237		3,940
Other States	1,466	1,485	862		8,861	2,535
Total Interstate	476,731	435,675	405,188	296,213	439,214	410,604
Total Interstate	476,731	435,675	405,188	296,213	439,214	410,604
Total Intrastate	33,636	36,058	48,886	38,423	51,196	41,640
Total Movement from the North- western District	510,367	471,733	454,074	334,636	490,410	452,244

*Shipments within the Northwestern District are not included in the total intrastate movement from the district.

The table shows that 9 per cent of the cattle forwarded from this section since 1923 went to other parts of Texas, while 91 per cent were sent to other states.

The relative importance of the principal outlets for this district is shown in Figure 6.



MOVEMENT TO OTHER TEXAS DISTRICTS

There has been a relatively small movement of cattle from the Panhandle to other sections of Texas. The annual average movement for the five-year period was only 41,640 head, or 9 per cent of the total shipments from the district. Approximately seven-tenths of these intrastate shipments went to District III or Central Texas, which includes Fort Worth—the principal livestock market of the Southwest. The major portion of the cattle went to the Fort Worth

market. The trend of the shipments from District I to this market has been definitely upward during the last five years. Approximately 7 per cent of all the cattle shipped from this area went to the Fort Worth district in 1927, while only 5 per cent were received there in 1923. Approximately 58 per cent of the 1927 movement to the Central district were cows which were shipped all during the year. The heaviest season was the fall movement with a peak in October. Steer shipments comprised 20 per cent of the total number and were received at Fort Worth during the spring and fall with October the high month. The other shipments consisted primarily of calves with November the heaviest shipping month. February, March, August, and September also were heavy calf-shipping months. The small volume to the Fort Worth market is attributed to the facts that this section is closer to the Wichita and Kansas City markets than it is to the Fort Worth market, that more rapid transportation service is available to the Northern markets, and that feed-in-transit privileges are available to shippers desiring to stop off in grazing and feeding areas on the way to the Northern markets.

The West Central district has received an average of slightly over 8,000 head annually from District I. The movement during 1927 consisted of 51 per cent cows, 40 per cent steers, 8 per cent calves, and 1 per cent heifers. The cows were shipped principally during April, May, and October, the steers during January, October, and November, and the calves during November, May, and July.

MOVEMENT TO OTHER STATES

The annual interstate movement of cattle from this district has averaged 410,604 head or 91 per cent of all the cattle shipped from this area. The principal markets which have received these cattle are Kansas City, Wichita, Oklahoma City, Denver, South St. Joseph, and Omaha.

Movement to the Kansas City Market.—Kansas City is the largest market for cattle direct from this district. Approximately 35 per cent of the interstate shipments and

32 per cent of the total movement from this area during the last five years were shipped direct to the Kansas City market. The trend of these shipments, however, has been decidedly downward. The number decreased from 208,631 head or 41 per cent of the 1923 movement to 119,285 head or 24 per cent of the 1927 shipments from the district. Approximately one-half of the movement during 1927 was shipped in September, October, and November, the peak being in October. The remaining half was distributed over the other nine months, the low point being reached in July. Cattle shipped to Kansas City in 1927 were divided as follows: Cows and bulls 49 per cent, steers 33 per cent, and calves and heifers 18 per cent.

Movement to the Wichita Market.—The second most important cattle market of the Northwestern district since 1923 has been Wichita, Kansas. The average annual shipments amounted to 30,137 head or approximately 7 per cent of the total movement from this section. The trend of the district forwardings during this five-year period has been slightly upward. In 1923, only 6 per cent of the total movement went to the Wichita market.

Most of the shipments to Wichita, like those to Kansas City, were cows and steers. The former class comprised 49 per cent of the 1927 shipments, while the steers accounted for 35 per cent of the total. The other 16 per cent were calves and heifers. The heaviest shipping months for cows were January and April and from July to December. The bulk of the steers were forwarded in January, April, September, October, and December. Most of the calves were shipped during the last half of the year.

Movement to Other Markets.—The Oklahoma City market has been receiving nearly 5 per cent of the direct cattle shipments from this section. The trend of the movement has been upward during this five-year period; less than 4 per cent of the district's shipments in 1923 went to this market.

Although the Denver market receives only a small portion of the cattle shipments direct from the Panhandle

section, the trend has been decidedly upward during the past three years. Less than two thousand head of cattle were sent to Denver in 1925 and in 1926, whereas over ten thousand were shipped to this market in 1927 from District I.

The South St. Joseph market receipts of cattle direct from this district have decreased rapidly during the last five years. This market received 23,378 head, or slightly less than 5 per cent of the cattle shipments from District I in 1923 as compared with only 5,074 head, or slightly over 1 per cent of the shipments in 1927.

The Omaha market, likewise, has suffered a decline in cattle receipts direct from the Northwestern district during the five-year period; the number has decreased from 11,050 head in 1923 to 2,335 head in 1927.

The livestock markets at Chicago, East St. Louis, and Los Angeles receive but a limited number of cattle from this district because of the greater distance from Texas as compared with the closer markets.

THE PRINCIPAL GRAZING AND FEEDING AREAS

This district is primarily a breeding and grazing section so that a large number of the cattle shipped out each year are not finished. Many of them are shipped to other states for further grazing and feeding before they are sent to market. More than half of the cattle shipped from this territory since 1923 have been sent to grazing and feeding areas in Kansas, Oklahoma, Nebraska, Illinois, Iowa, Missouri, Ohio, Colorado, New Mexico, South Dakota, and other states.

Movement to "Other Points" Kansas.—An annual average of 112,990 head, or approximately 25 per cent of all the cattle shipped out of District I since 1923 have gone to grazing areas or "Other Points" Kansas. The trend of the movement has been upward during this period. The number increased from 91,523 head, or 18 per cent of the total movement in 1923, to 145,882 head, or 30 per cent of the number shipped from this district in 1927.

Approximately 70 per cent of the 1927 cattle movement to these grazing areas were steers, 16 per cent cows, 9 per cent calves, and 5 per cent heifers. There are two definite shipping seasons from this district during the year; the spring movement lasts through March, April, and May; and the fall movement extends from September to November. Approximately 89 per cent of the steers and 78 per cent of the cows were shipped out during these two periods. April and October were peak months for each class of cattle.

Movement to "Other Points" Oklahoma.—The Osage and other grazing areas in Oklahoma have been attracting increased numbers during the last five years. The shipments increased from 7,387 head, or slightly over 1 per cent of the district movement in 1923, to 41,379 head, or 8 per cent of the total shipments in 1927.

Over 55 per cent of the movement to Oklahoma in 1927 were steers, 30 per cent cows and bulls, 12 per cent calves. Approximately 83 per cent of the steers were shipped in October. The bulk of the cow shipments were scattered during the months of January, April, June, August, October, and November. Most of the calves were transferred in April and October.

Movement to "Other Points" Nebraska.—Many cattle producers and shippers of the Panhandle district have sent their cattle to grazing and feeding areas in Nebraska during the last five years. This movement, like that to Kansas and Oklahoma, has been growing. The number increased from 5,006 head in 1923 to 12,189 head in 1927.

The records for 1927 show that 45 per cent of the movement to Nebraska points were calves and heifers, 39 per cent steers, and 16 per cent cows. May, June, October, and November were the heavy shipping months; over 91 per cent of the cattle billed to Nebraska feeding and grazing areas in 1927 went out during these four months. Most of the calves, heifers, and cows and about half of the steers were shipped during May and a part of June; the others were loaded during October and November.

Other Grazing and Feeding Areas.—The most noticeable feature of the movements to the smaller outlets has been the downward trend to points in California, Illinois, Indiana, Iowa, New Mexico, Ohio, and South Dakota. Part of the decline was offset by increased forwardings to points in Colorado, Kentucky, Tennessee, and Virginia, indicating the possibility of expanding these market outlets provided Texas cattlemen produce the type and quality of stock demanded.

TABLE 23
NUMBER OF CATTLE SHIPPED TO THE NORTHWESTERN
DISTRICT OF TEXAS
1923 TO 1927

Origin	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern*	49,565	42,970	78,298	63,500	88,722	64,611
II. West Central	12,773	10,815	17,461	17,622	27,773	17,289
III. Central	5,864	8,680	8,896	8,135	6,608	7,636
IV. Eastern	338	1,423	726	504	364	671
V. Western	25,713	21,635	34,021	29,550	46,545	31,493
VI. Southern		1,286	1,485	2,952	121	1,169
VII. Southeastern					2,080	416
Total Intrastate	44,688	43,839	62,589	58,763	83,491	58,674
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona		4,851	3,023	5,938	4,030	3,568
Colorado:						
Denver		32		50		16
Other Points	180			3	286	94
Kansas:						
Wichita	1,759	125	1,189	423	110	721
Other Points	483	278	1,764	867	1,187	916
Missouri:						
Kansas City	82	330	668	113	10	241
South St. Joseph	18					3
Other Points	86		2			18
Nebraska:						
Omaha						
Other Points			1,290	2,344		727
New Mexico	10,897	25,518	50,929	39,824	78,557	41,145
Oklahoma:						
Oklahoma City	385	885	175	182	30	331
Other Points	471	67	1,606	1,349	2,812	1,261
Other States	264	31	21	281	110	141
Total Interstate	14,625	32,117	60,667	51,374	87,132	49,183
Total Interstate	14,625	32,117	60,667	51,374	87,132	49,183
Total Intrastate	44,688	43,839	62,589	58,763	83,491	58,674
Total Movement to the North- western District	59,313	75,956	123,256	110,137	170,623	107,857

*The shipments within the Northwestern District are not included in the total intrastate movement to the district.

CATTLE SHIPMENTS TO NORTHWESTERN TEXAS

The Panhandle section is a surplus cattle producing area and naturally the inflow of cattle is small. The average number shipped into this district annually during the last five years was 107,857 head, of which 55 per cent came from the other six livestock districts of Texas and 45 per cent were received from other states. The movement for the entire period is shown in Table 23.

RECEIPTS FROM OTHER TEXAS DISTRICTS

Practically all the shipments received from other Texas sections came from the western half of the State. Approximately 54 per cent originated in District V, Western Texas, 29 per cent in District II, West Central Texas, and 13 per cent in District III, Central Texas.

There has been a decided upward trend in the number of cattle received in this territory since 1923. The other six livestock districts shipped 83,491 head to this section in 1927, as compared with only 44,688 head in 1923. One-half of the cattle received from District V during 1927 were steers, 31 per cent were cows, and the others were calves and heifers. The heavy steer shipping seasons were during May, June, and July and from September to December. Most of the cows were shipped during the last four months of the year. The bulk of the calves and heifers were shipped during February, October, November, and December.

The movements from the other districts were very similar to those from District V. These shipments represent the movement of cows and steers from the western districts of the State to re-stock the ranges which were depleted following the depression period of 1920 and 1921 and to replace the Panhandle cattle which already had moved on farther north to market, grass, or feed lots.

RECEIPTS FROM OTHER STATES

The average number of cattle received annually in this district from other states during the last five years was 49,183 head. This average represents an increase in the number of cattle received from 14,625 head in 1923 to 87,132 in 1927. This sharp increase resulted principally from the heavy New Mexico shipments. Cattle from Arizona, Oklahoma, and Kansas also entered District I during this period.

Receipts from New Mexico.—The New Mexico cattle shipments to Northwestern Texas increased from 10,897 head in 1923 to 78,557 in 1927. This movement, which was 47 per cent of all the cattle brought into the district during 1927, was encouraged by the return of more favorable cattle prices, enabling producers to re-stock their ranges. Northern buyers filled their orders from the Panhandle section and the local cattleman replenished their herds with New Mexico cattle.

The shipments from New Mexico, like those of others to and from this district, have been heaviest during the spring and fall. Approximately 71 per cent of the 1927 receipts from New Mexico came in during October, November, and December. May was the peak month of the spring movement. Approximately 47 per cent of these shipments were calves, 37 per cent cows and bulls, 15 per cent steers, and 1 per cent heifers.

NET MOVEMENT OF CATTLE FROM NORTHWESTERN TEXAS

The importance of the Northwestern district as a surplus producer of cattle is indicated by the volume of the annual net outflow. Out-going cattle shipments have exceeded the number entering the district by 344,387 head during the last five years. The net movements since 1923 are summarized in Table 24.

TABLE 24
NET MOVEMENT OF CATTLE FROM THE NORTHWESTERN
DISTRICT OF TEXAS
1923 TO 1927

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from the District...	510,367	471,733	454,074	334,636	490,410	452,244
Total Movement of Cattle to the District...	59,313	75,956	123,256	110,137	170,623	107,857
Net Outflow	451,054	395,777	330,818	224,499	319,787	344,387

The trend of the net outflow from this district is more significant than is indicated by the average, since the number has decreased from 451,054 head in 1923 to 319,787 head in 1927. This downward tendency was brought about by both a decrease in forwardings and a sharp increase in receipts from 1923 to 1927.

Furthermore, the net outflow is an index of the surplus producing capacity of the district if the cattle population remains constant during the period. Such a condition, however, seldom exists. There is usually an increase or a decrease in the number of cattle during the year. It is essential, therefore, to compare the annual net outflow with the number of cattle retained on farms and ranches in the district. The comparisons, since 1923, are shown in Table 25.

TABLE 25
COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE NORTHWESTERN DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Northwestern District at End of the Year*	Net Outflow of Cattle from the Northwestern District	Per Cent of the Total Number
1923	917,000	451,054	49.2
1924	941,000	395,777	42.0
1925	944,000	330,818	35.0
1926	935,000	224,499	24.0
1927	897,000	319,787	35.6
5-Yr. Ave. 1923-1927	926,800	344,387	37.2

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

The annual net outflow, exclusive of local and farm slaughterings and death losses, comprised more than 37 per cent of the cattle population during this period. Heavy marketing continued to occur as cattlemen gradually liquidated their holdings following the severe decline of prices in 1920 and 1921. Then during 1925 and 1926 fewer cattle were shipped from the district and more were brought in to re-stock the depleted ranges. As prices regained their former levels during 1927, marketings from this district increased.

District II—West Central Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

District II, the West Central portion of Texas, extends across the State from the Oklahoma line to the Mexican border and includes the fifty counties which are shown in Figure 1. Notwithstanding the fact that the type and quality of cattle are fairly uniform over all parts of this district, the general character of crop production varies considerably. The upper portion has been converted during the last two decades from a range country into an important farming section. At the present time, the greater part of the gross income is derived from farming operations. The lower half of the district, however, is in the Edwards Plateau Region and is still almost exclusively a livestock producing area. Practically all the agricultural income of this section is obtained from the sale of livestock and livestock products. It is not only an important cattle district but also an extensive sheep and goat raising section. The lower part of District II produces 78 per cent of all the sheep and 68 per cent of all the goats grown in the State. This is especially significant in view of the fact that 10 per cent of the sheep and 81 per cent of the goats in the nation are in Texas.

Cotton is the principal money crop grown in the West Central district. The last Agricultural Census shows that 2,630,000 acres or about 16 per cent of the cotton acreage in 1924 were harvested in this area, most of which was produced in the upper portion.³ The next important crop in District II is grain sorghums. Over 705,000 acres in these counties were planted in sorghums in 1924. This amounted to 28 per cent of the sorghum acreage of the State. The bulk of this crop was also produced in the upper portion of the district. Approximately 263,000 acres, or 22 per cent of the Texas oat acreage were harvested in the West Central district in 1924.⁴ During the same year, 200,000 acres of corn and 161,000 acres of wheat were gathered and threshed in District II.

The abundance of these feed crops makes the upper part of this district a favorable section for the encouragement of a more intensive cattle feeding program, either as a separate undertaking or as a part of the general farming operations.

The Edwards Plateau Region, however, does not have an adequate acreage of feed crops to warrant feeding on a commercial scale. It is primarily a breeding section and is especially equipped to furnish buyers with a good grade of stocker and feeder cattle. The producers in West Central Texas have been improving the quality of their herds very materially during the past few years and this improvement is being reflected in the stocker and feeder demand for cattle from the area.

CATTLE SHIPMENTS FROM WEST CENTRAL TEXAS

A summary of the annual movement of cattle from this section since 1923 is given in Table 26. During this period,

³United States Census of Agriculture, 1925.

⁴*Ibid.*

TABLE 26
NUMBER OF CATTLE SHIPPED FROM THE WEST CENTRAL
DISTRICT OF TEXAS
1923 TO 1927

Destination	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	12,773	10,815	17,461	17,622	27,773	17,289
II. West Central*	16,687	18,304	25,307	32,097	55,488	29,577
III. Central	314,378	350,767	270,071	249,954	288,036	294,641
IV. Eastern	461	172	2,170	666	547	803
V. Western	2,597	5,838	8,621	8,173	7,244	6,495
VI. Southern	14,481	20,385	16,131	18,917	24,337	18,850
VII. Southeastern	953	1,692	711	972	533	972
Total Intrastate	345,643	389,669	315,165	296,304	348,470	349,050
INTERSTATE SHIPMENTS:						
By States and Markets:						
California:						
Los Angeles	1,769	253	814	60	591	697
Other Points	-----	-----	64	215	-----	56
Colorado:						
Denver	58	100	490	134	884	333
Other Points	851	810	1,952	335	2,411	1,272
Illinois:						
Chicago	40	-----	227	222	1,072	312
East St. Louis	4,249	1,378	791	1,238	1,026	1,736
Other Points	4,276	2,915	2,735	2,960	5,073	3,592
Indiana	1,247	1,466	806	481	452	890
Iowa	2,790	376	2,270	2,546	2,651	2,127
Kansas:						
Wichita	19,592	22,170	12,153	5,503	9,193	13,722
Other Points	23,404	32,517	45,276	30,359	44,544	35,220
Missouri:						
Kansas City	51,063	35,518	24,426	8,703	29,073	29,757
South St. Joseph	7,938	7,495	1,305	735	1,175	3,730
Other Points	10,722	958	3,339	2,475	3,570	4,213
Nebraska:						
Omaha	2,153	3,711	-----	-----	274	1,228
Other Points	3,392	1,579	-----	374	1,451	1,359
New Mexico	987	414	103	606	836	589
Ohio	3,319	3,748	929	1,710	310	2,003
Oklahoma:						
Oklahoma City	4,719	11,238	9,558	4,688	3,985	6,837
Other Points	26,827	36,137	66,994	27,230	43,658	40,169
Other States	2,462	2,457	892	274	3,337	1,885
Total Interstate	171,858	165,240	175,124	90,848	155,566	151,727
Total Interstate	171,858	165,240	175,124	90,848	155,566	151,727
Total Intrastate	345,643	389,669	315,165	296,304	348,470	339,050
Total Movement from the West						
Central District	517,501	554,909	490,289	387,152	504,036	490,777

*The shipments within the West Central District are not included in the total intrastate movement from the district.

the annual outflow has averaged 490,777 head, of which 69 per cent went to the other livestock districts of Texas and 31 per cent to other states.

The relation between the 1927 movement and the average for the five-year period is presented graphically in Figure 7.

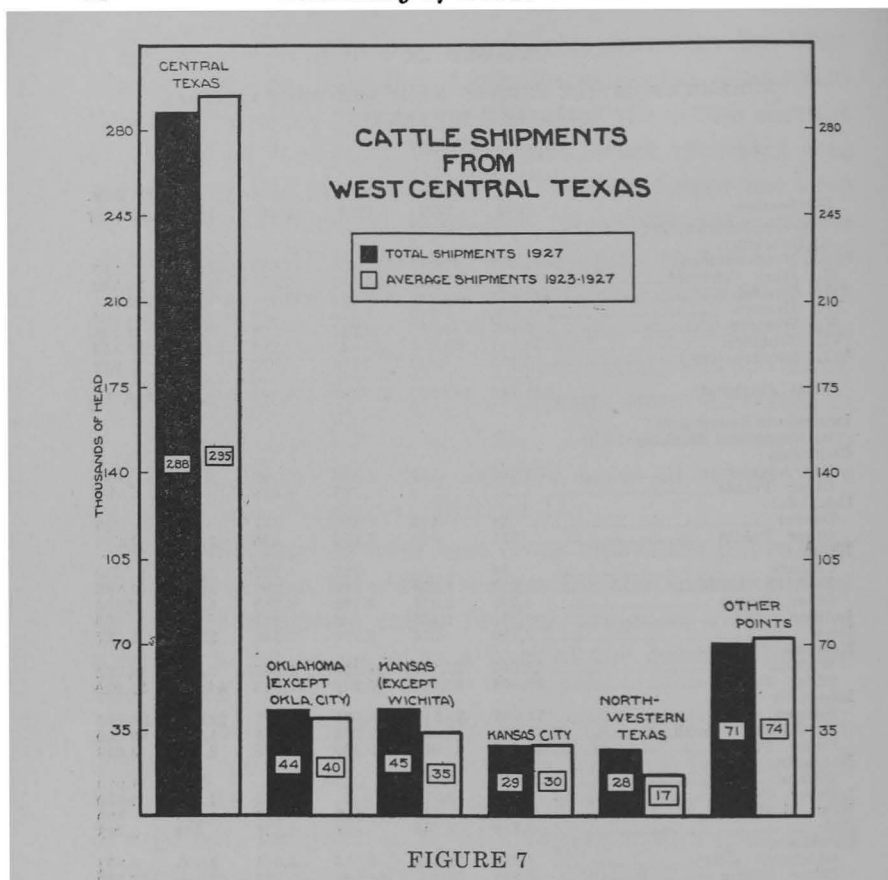


FIGURE 7

MOVEMENT TO OTHER TEXAS DISTRICTS

One of the most noticeable features of the shipments from this territory is the heavy intrastate movement. Approximately 70 per cent of all cattle shipped out during the last five years have gone to other sections of the State.

The Central district which includes the Fort Worth market has received 87 per cent of the intrastate shipments and 60 per cent of all the cattle forwarded from District II since 1923. Practically all of these cattle went to Fort Worth. The movement, however, has been decreasing during this period, the number dropping from 314,378 head

in 1923 to 288,036 in 1927. About 55 per cent of the shipments during 1927 were cows, 27 per cent calves, 15 per cent steers, and 3 per cent heifers. The heavy cow shipments extended from May through December with November as the peak month. Most of the calves were marketed during September, October, and November. The steer movement ran from March to December with October as the high month.

Large numbers of cattle have been sent each year also to the Southern and Northwestern districts from West Central Texas. The annual movement to both of these grazing areas has been increasing. Approximately 78 per cent of the cattle sent to the Southern district in 1927 were cows, the major portion of which was transferred from July to December. Cow shipments comprised 11 per cent of the total number and they were shipped principally during May, July, August, and September. The calves and heifers were billed out during January, February, May, July, August, and October.

One-half of the movement to the Northwestern district during 1927 was cows, 41 per cent calves and heifers, and 9 per cent steers. The cows were shipped from September to December; the calves during July, October, and November; the heifers in August and November; and the steers during May, September, and October.

The Western district, likewise, has been receiving cattle from District II. These shipments, consisting primarily of cows and steers, were made in the late fall months and went to grazing areas, to packers, or to feed lots at and near El Paso.

MOVEMENT TO OTHER STATES

Over three-fourths of the interstate forwardings of cattle from this district since 1923 have been direct to the Kansas City and Wichita markets or to grazing areas in Kansas and Oklahoma. The shipments to these markets and to the less important outlets during this period are shown in Table 26.

Movement to the Kansas City Market.—With the exception of Fort Worth, Kansas City has been the most important cattle market for the West Central district. Approximately 9 per cent of the total movement since 1923 have been sent direct to this market. The trend of shipments has been downward during this period. The number decreased from 51,063 head in 1923 to 29,073 head in 1927.

Approximately 49 per cent of the 1927 movement were steers, 28 per cent cows, 18 per cent calves and 5 per cent heifers. The steers were shipped all during the year, but the heavy shipping months were January, February, May, June, July, September, and October. Cows also were sent to this market all during the year. The peak months were February, April, and November. The big calf shipping season was during the fall with the peak in November. Most of the heifers were shipped during October.

Movement to the Wichita Market.—The trend of cattle shipments direct to the Wichita market from District II, likewise, has been downward during the last five years. The number decreased from 19,592 head in 1923 to 9,193 head in 1927. The decline is attributed to the growing practice among producers and shippers of taking their cattle to grazing and feeding areas before going to market.

During 1927, the movement from District II direct to Wichita consisted of 40 per cent steers, 40 per cent cows, 13 per cent calves, and 7 per cent heifers. Most of the steers, cows, and heifers were shipped during April and May, while the major portion of the calf shipments were made during October, November, and December.

Movement to "Other Points" Oklahoma.—The upward trend of cattle shipments from District II to grazing areas in Oklahoma also indicates the growing tendency of producers and buyers to better finish their cattle before taking them to market. The stocker movement from the West Central district direct to Oklahoma increased from 26,827 head in 1923 to 43,658 head in 1927.

Steers comprised 58 per cent of the total shipments during 1927, the majority of which were made in April.

Approximately 26 per cent of the total number were cows and most of them were shipped in April, August, October, and November. Practically all of the remaining 16 per cent were classed as calves and the major portion of them went to Oklahoma during the fall months.

Movement to "Other Points" Kansas.—The shipments to Kansas, like those to the other important grazing areas, have been gaining in the past five years. They have increased from 23,404 head in 1923 to 44,544 head in 1927.

Approximately 80 per cent of the 1927 shipments were steers and most of them were transferred during April. The months of March, May, and October were also credited with large numbers. Cow shipments made up 9 per cent of the total and the heavy shipping months were April, May, and November. The other 11 per cent were calves and heifers. Most of the calves were shipped during February, April, and October, while the majority of the heifers were sent to Kansas in June and November.

CATTLE SHIPMENTS TO WEST CENTRAL TEXAS

The shipments of cattle into this section have been relatively smaller than the outgoing movement. The annual inflow since 1923 has averaged 51,721 head, over 92 per cent of which came from other Texas districts and 8 per cent originated in other states. The trend of shipments has been upward during this five-year period. The number increased from 26,637 head in 1923 to 74,063 head in 1927. Most of these additional cattle originated in either the Central, Western, Northwestern or Southern districts. The incoming shipments since 1923 are summarized by market and state origins in Table 27.

TABLE 27
NUMBER OF CATTLE SHIPPED TO THE WEST CENTRAL
DISTRICT OF TEXAS
1923 TO 1927

Destination	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927	
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	3,328	5,198	10,964	9,614	11,734	8,168
II. West Central*	16,687	18,304	25,307	32,097	55,488	29,577
III. Central	9,666	10,648	25,275	19,961	20,567	17,227
IV. Eastern	2,415	1,680	1,906	1,903	1,541	1,889
V. Western	5,218	5,622	7,695	16,635	26,770	12,388
VI. Southern	2,829	1,441	18,079	3,965	9,298	7,122
VII. Southeastern	284	90	3,587	766	50	956
Total Intrastate	23,740	24,679	67,506	52,844	69,960	47,746
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona	612	—	—	—	60	134
Kansas:						
Wichita	40	158	—	—	—	40
Other Points	—	—	752	162	25	188
Louisiana:						
New Orleans	—	—	130	63	845	207
Other Points	—	—	—	—	—	—
Missouri:						
Kansas City	427	840	58	193	58	315
South St. Joseph	700	—	—	—	71	154
Other Points	12	—	141	90	130	75
New Mexico	353	1,160	5,441	1,200	2,003	2,031
Nebraska:						
Omaha	—	—	1,376	23	50	295
Other Points	24	—	—	—	—	—
Oklahoma:						
Oklahoma City	—	53	—	—	—	11
Other Points	709	282	425	77	480	395
Other States	20	28	222	—	381	130
Total Interstate	2,897	2,521	8,545	1,808	4,103	3,975
Total Interstate	2,897	2,521	8,545	1,808	4,103	3,975
Total Intrastate	23,740	24,679	67,506	52,844	69,960	47,746
Total Movement to the West Central District	26,637	27,200	76,051	54,652	74,063	51,721

*The shipments within the West Central District are not included in the total intrastate movement to the district.

RECEIPTS FROM OTHER TEXAS DISTRICTS

Most of the cattle entering the West Central district since 1923 originated in Districts I, III, V, or VI, the same sections to which the major portion of the forwardings were shipped.

The heaviest movement came from the Central district which includes the Fort Worth market. These shipments increased from 9,666 head in 1923 to 20,567 head in 1927. The largest volume was received during 1925 when the ranges in this territory were not so dry as those in some of the other districts. Approximately 41 per cent of the

1927 shipments were cows, 27 per cent steers, 26 per cent calves, and 6 per cent heifers. The peak shipping month for each of these classes occurred in October. The other heavy shipping months were January, February, and March and from August to December.

Receipts from the Western district were especially heavy during 1927 primarily because of the better grazing conditions in District II in 1926. The heavy movement during 1927 consisted of 45 per cent cows, 27 per cent calves, 25 per cent steers, and 3 per cent heifers. Most of the cows were shipped during June, August, September, October, and November. The heavy calf shipping months were January and May and from September to December. The major portion of the steers was transferred during May, September, October, and November.

The stocker cattle movement from the Northwestern district to District II, likewise, has been increasing since 1923. Approximately 51 per cent of the 1927 movement were cows, 40 per cent steers, and 9 per cent calves and heifers. Most of the cows were transferred during April, May, and October; the steers during January, October, and November; and the calves during May, July, and November.

The receipts from District VII have fluctuated widely during this period. The heavy shipments during 1925 were brought about by the range conditions in the Southern district that year. About 50 per cent of the 1927 movement were steers, 29 per cent cows, and 21 per cent calves. The majority of the steers were shipped in April, May, November, and December; the cows in February, August, October, November, and December; and the calves during March, April, August, and November.

RECEIPTS FROM OTHER STATES

New Mexico has supplied over one-half of the small volume of interstate receipts of cattle entering the West Central district since 1923. The major portion of shipments during 1927 was calves, which were shipped during July and November. Some cattle, principally cows, forced

out of Louisiana following the Mississippi flood in 1927, were sent to District II. Oklahoma also has transferred a few hundred stocker cattle to this grazing territory annually during the last five years.

NET MOVEMENT OF CATTLE FROM WEST CENTRAL TEXAS

The number of cattle shipped out of this district compared with the number brought in shows an annual average net outflow of 439,056 head since 1923. These figures are summarized in Table 28.

TABLE 28

NET MOVEMENT OF CATTLE FROM THE WEST CENTRAL
DISTRICT OF TEXAS
1923 TO 1927

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from the District....	517,501	554,909	490,289	387,152	504,036	490,777
Total Movement of Cattle to the District....	26,637	27,200	76,051	54,652	74,063	51,721
Net Outflow....	490,864	527,709	414,238	332,500	429,973	439,056

The heavy net disappearance makes this district the largest surplus producing area in Texas for the five years. The annual net outflow decreased until 1927 because of both decreases in the outgoing shipments and increases in the number of incoming cattle.

Under normal conditions, the annual net movement indicates the importance of the district as a surplus cattle producing area. On the other hand, it may include more or less than the normal increase of cattle, depending upon the condition of the market and the ranges. Therefore, the annual net movement should be associated with the estimated number of cattle found on farms and ranches in the district. This comparison is presented for each of the last five years in Table 29. The net outflow, exclusive of local and farm slaughterings and death losses, averaged 33 per

cent of the cattle population for the five-year period. The only extreme deviation from this average was in 1926 when fewer cattle were sent to market because, during the preceding year, drought conditions had forced many producers to dispose of all or a part of their breeding herds. Furthermore, these adverse conditions cut down the size of the calf crop.

TABLE 29
COMPARISON OF THE TOTAL NUMBER WITH THE ANNUAL NET OUTFLOW
OF CATTLE FROM THE WEST CENTRAL DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle West Central District at End of the Year*	Net Outflow of Cattle from the West Central District	Per Cent of the Total Number
1923	1,441,000	490,864	34.1
1924	1,381,000	527,709	38.2
1925	1,298,000	414,238	31.9
1926	1,285,000	332,500	25.9
1927	1,234,000	429,973	34.8
5-Yr. Ave. 1923-1927	1,327,800	439,056	33.0

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

District III—Central Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

The Central District includes the major portion of the black land farming belt which produces a large share of the principal crops of the State. It is a more important crop growing section than it is a livestock producing area.

The principal crop grown in the district is cotton. Approximately 6,665,000 acres, or 40 per cent of the total cotton acreage of the State, were picked in this area in 1924.⁵ This one crop is the source of most of the agricultural income of the Central district. Corn also is grown

⁵United States Census of Agriculture, 1925.

extensively in Central Texas. The last Census shows that 1,535,000 acres, or 42 per cent of the total corn crop of Texas, were harvested in District III. Approximately 714,000 acres of oats, or 59 per cent of the State oat acreage, also were grown in this section. These three major crops were supplemented with 19 per cent of the State wheat acreage, 14 per cent of the grain sorghums, and smaller acreages of many other field, truck, and fruit crops.

The southern, eastern, and northeastern portions are devoted largely to general farming, while the western and northwestern sections have a mixed program of general farming and livestock production. The territory west and southwest of Fort Worth is an important cattle feeding area. The principal method of feeding is with cottonseed cake or corn on grass.

The abundance of feed and forage crops which are produced in this district make it adaptable to a more intensive cattle feeding program than has been carried on in the past. The majority of the farmers have very little field work to do during the winter months when cattle feeding operations usually are being conducted. Therefore, the feeding of cattle on a small scale might be combined profitably with general farming operations where an adequate supply of feed is grown or can be secured at a reasonable price.

INFLUENCE OF THE FORT WORTH MARKET

The most valuable livestock asset to the producers and shippers of not only this district but also the entire State is that one of the leading livestock market centers of the country is located at Fort Worth. This market exerts a marked influence especially upon the movement of cattle to and from the State. Even though a considerable portion of Texas cattle are not received at Fort Worth, this market has been one of the most influential factors toward the maintenance of a dependable market within the producing areas of Texas.

TABLE 30

NUMBER OF CATTLE SHIPPED FROM THE CENTRAL DISTRICT OF TEXAS
1923 TO 1927

Destination	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	5,864	8,680	8,896	8,135	6,608	7,637
II. West Central	9,666	10,648	25,275	19,961	20,567	17,223
III. Central*	339,021	350,070	380,781	270,710	343,246	336,769
IV. Eastern	3,887	6,409	8,346	2,505	685	4,357
V. Western	1,615	1,950	11,726	2,569	1,765	3,925
VI. Southern	19,043	24,440	17,368	8,000	10,025	15,775
VII. Southeastern	12,065	11,523	15,774	4,644	4,444	9,690
Total Intrastate	52,140	63,650	87,385	45,814	44,044	58,607
INTERSTATE SHIPMENTS:						
By States and Markets:						
Alabama	1,075	1,174	276	24	178	545
Arizona	123	-	371	179	631	261
Arkansas	628	457	217	318	329	390
California:						
Los Angeles	43	1,270	690	855	946	761
Other Points	371	771	891	147	532	542
Colorado:						
Denver	4,951	30	829	950	1,044	1,561
Other Points	949	150	247	269	73	337
Illinois:						
Chicago	1,185	6,313	3,203	4,272	6,737	4,342
East St. Louis	20,253	14,330	6,660	8,904	2,773	10,584
Other Points	3,143	1,061	1,365	911	1,202	1,536
Indiana	6,617	4,673	1,225	282	180	2,595
Iowa	1,340	3,108	1,474	2,286	3,328	2,307
Kansas:						
Wichita	8,203	5,676	5,470	2,753	4,291	5,279
Other Points	14,110	14,989	27,157	13,725	21,442	18,285
Kentucky	294	2,003	1,060	663	3,238	1,452
Louisiana:						
New Orleans	17,301	12,295	7,289	5,273	3,310	9,093
Other Points	1,247	3,586	1,883	629	684	1,606
Missouri:						
Kansas City	59,755	41,409	33,350	28,672	37,454	40,128
South St. Joseph	7,858	6,863	4,350	1,011	2,426	4,502
Other Points	1,656	2,617	4,032	1,033	1,934	2,254
Michigan	-	41	-	-	1,014	211
Nebraska:						
Omaha	8,914	12,046	4,609	630	1,840	5,608
Other Points	1,884	4,753	406	730	1,061	1,767
New Jersey	7,037	7,515	3,299	3,524	2,305	4,736
New Mexico	1,558	357	1,530	227	739	882
New York	5,796	12,480	5,537	3,322	8,103	7,048
Ohio	3,731	5,059	3,532	3,205	1,652	3,436
Oklahoma:						
Oklahoma City	14,814	16,333	5,708	7,420	4,728	9,801
Other Points	19,496	24,935	57,280	45,986	61,578	41,855
Pennsylvania	1,209	180	952	3,122	2,882	1,669
South Dakota	820	1,083	954	922	530	862
Tennessee	1,012	1,088	137	521	2,295	1,011
Other States	1,425	927	681	1,025	878	987
Total Interstate	218,798	209,572	186,664	143,790	182,337	188,232
Total Interstate	218,798	209,572	186,664	143,790	182,337	188,232
Total Intrastate	52,140	63,650	87,385	45,814	44,044	58,607
Total Movement from the Cen- tral District	270,938	273,222	274,049	189,604	226,381	246,839

*The shipments within the Central District are not included in the total intrastate movement from the district.

Furthermore, the economic advantages of this market, by virtue of its location in the heart of a large producing section and in the center of a large and rapidly growing meat consuming area, are more favorable than those facing some of the other large livestock markets not so favorably located.

CATTLE SHIPMENTS FROM CENTRAL TEXAS

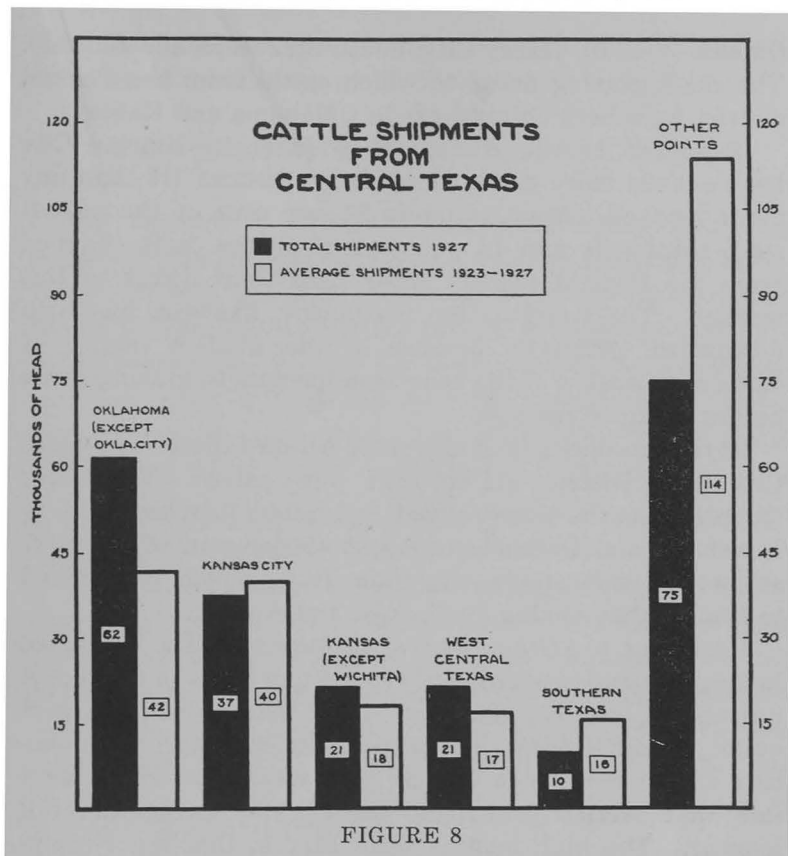
The importance of the Fort Worth market as a cattle distributing center may be appraised from the summary of shipments from District III. The movement since 1923 is presented in Table 30.

More than three-fourths of the cattle forwarded from the Central district during the last five years have gone to points outside of Texas. This heavy interstate movement largely represents the re-shipment of cattle to other markets, pastures, and feed lots after they were received at Fort Worth. The relative importance of the principal outlets for cattle shipped from Central Texas during 1927 and the average for the five-year period are shown graphically in Figure 8.

MOVEMENT TO OTHER TEXAS DISTRICTS

Approximately 56 per cent of the cattle shipped to other Texas districts from this territory since 1923 were sent to Districts II and VI. The movement to West Central Texas during 1927 consisted of 41 per cent cows, 27 per cent steers, 26 per cent calves, and 6 per cent heifers. There were two heavy shipments of each of these classes, from January to March and from August to December.

Approximately 47 per cent of the 1927 movements to South Texas from District III were steers, 41 per cent cows, and 12 per cent calves and heifers. Most of the steers were shipped to this grazing area from June to October. The heavy cow shipping months were January, March, June, July, August, and October. The months of May, July, and October received credit for the majority of the calves and heifers.



The shipments to District I included cows, steers, and calves. The heavy shipping season was during October, November, and December. Most of the cattle shipped from Fort Worth to the Southeastern district originally came from either the Southern, Southeastern, or Eastern districts, because a large portion of District VII is infested with fever ticks which makes the bringing in of clean cattle a risky undertaking.

MOVEMENT TO OTHER STATES

The principal out-of-state markets which have been receiving cattle from the Central district are Kansas City, East St. Louis, Oklahoma City, New Orleans, New York,

Omaha, Wichita, Jersey City, South St. Joseph and Chicago. The chief grazing areas to which cattle from the Central district have been shipped are in Oklahoma and Kansas.

Movement to the Kansas City Market.—Kansas City has received more cattle direct from District III than any other market. Approximately 21 per cent of the out-of-state shipments and 16 per cent of all the cattle shipped from the Central district since 1923 went direct to this market. The trend of the movement, likewise, has been downward, primarily because of the smaller volume of cattle and because of the heavier shipments to grazing areas before going to market.

More than one-half of the cattle shipped direct to Kansas City from District III in 1927 were calves. The heavy shipping months were August and September, followed by November and December. About 46 per cent of the 1927 shipments were steers, the majority of which were billed to Kansas City during June, July, and August.

Movement to "Other Points" Oklahoma.—The continued increase in shipments of cattle to grazing areas in Oklahoma during the last five years has made that state the largest outlet for cattle from the Central district. More than one-half of the movement during 1927 was cows which went into that section principally during the spring and fall months. The high months were March, October, November, and December. Over 31 per cent of the 1927 movement were steers. They were shipped all during the year with peaks in May and August. The remaining shipments consisted of calves and a few heifers. The heavy shipping season for these was during October, November, and December.

Movement to "Other Points" Kansas.—The shipments of cattle from District III to Kansas grazing areas, like those to Oklahoma, have increased during this five-year period. There has been a difference, however, in the seasonal movement and the kind of cattle sent to Kansas. Steers comprised about 75 per cent of the 1927 shipments and most of them were sent out during April and May.

The remaining one-fourth included cows and calves, the transfer of which was made all through the year.

CATTLE SHIPMENTS TO CENTRAL TEXAS

The location of the Fort Worth market in this area causes a heavy flow of cattle into the Central district. Many of them are slaughtered immediately, but a considerable number are sold as stockers or feeders and sent back to the country for further grazing or feeding or are shipped to some other market center. The summary of annual receipts and disposition of cattle at the Fort Worth stockyards since 1920, which is presented in Table 31, shows not only the total number, but also the relative proportion of calves to all other classes of cattle received at Fort Worth.

These figures show some interesting tendencies during the eight-year period. The receipts consisted of a large proportion of calves during 1921 and 1922 following the sharp break in cattle prices. Cattlemen were compelled to liquidate their holdings. Then as prices began to rise, a large number of heifer calves were held back. The ratio of calves to all cattle increased again in 1927 because of the high prices paid for them.

The percentage of calves slaughtered at Fort Worth followed the same general trend. The proportion of young animals killed was heavier during the period of liquidation and was smaller when prices began to rise. The increasing demand for more tender cuts of beef, however, has swelled the proportion of calves slaughtered.

The ratio of calves to all cattle in the stocker and feeder shipments from Fort Worth have been increasing since 1920. This increase is attributed to the improved quality of Texas calves, to the more active demand for feeder calves, and to the relatively small number of all cattle on farms and ranches.

TABLE 31

RECEIPTS AND DISPOSITION OF CATTLE AT THE FORT WORTH MARKET*
1920 TO 1927

Year	Receipts		Local Slaughter		Stocker and Feeder Shipments	
	All Cattle	Per Cent Calves	All Cattle	Per Cent Calves	All Cattle	Per Cent Calves
1920	1,135,000	22.8	558,000	45.1	278,000	7.2
1921	985,000	42.0	576,000	54.4	172,000	13.9
1922	1,072,000	30.3	620,000	52.3	225,000	9.5
1923	1,250,000	25.0	795,000	46.1	169,000	†
1924	1,394,000	24.8	972,000	46.2	158,000	17.5
1925	1,363,000	22.5	987,000	48.4	191,000	26.9
1926	1,210,000	20.9	761,000	39.9	222,000	21.2
1927	1,291,000	25.6	841,000	45.4	259,000	22.3
8-Yr. Ave. 1920-1927	1,212,500	26.7	763,750	47.2	209,250	

*Crops and Markets, United States Department of Agriculture.

†Calves not shown separately.

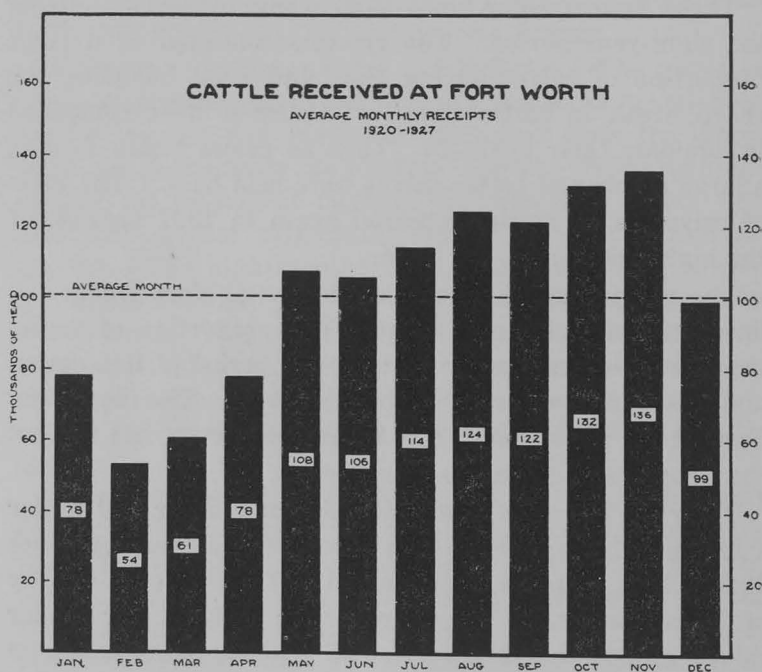
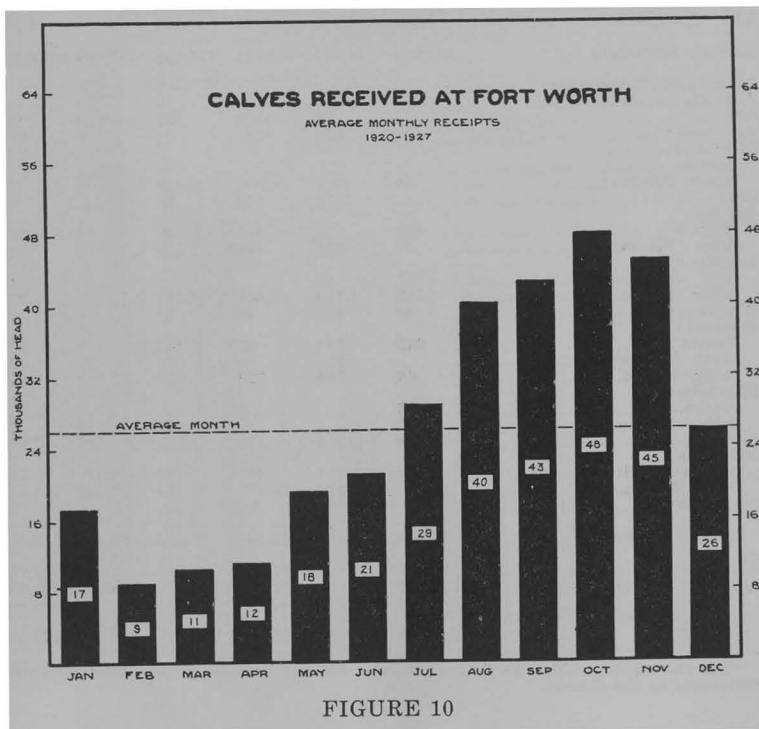


FIGURE 9

SEASONAL VARIATION OF CATTLE RECEIPTS
AT THE FORT WORTH MARKET

Monthly receipts of cattle at the Fort Worth market reflect the seasonal characteristics of intrastate shipments because 96 per cent of the Fort Worth receipts originate in Texas and because every section of the State ships to this market. The average monthly receipts of all cattle from 1920 to 1927 inclusive are shown in Figure 9. Shipments during the seven months, from May to November, exceeded the average monthly movements. These seven months received 69 per cent of the total shipments. The average annual movement advances gradually from the low level in February to the high point in November, then falls off during December and January. The shipments during the spring and early summer represent primarily the receipts of cows and heifers from District II or West Central Texas



and of steers, cows, and calves from South Texas. The heavy shipments during the remainder of the year include large shipments of cows, steers, heifers, and calves from all parts of Texas. While a large number of these grass fat cattle are slaughtered at Fort Worth, many of them are received at this livestock clearing house—the Fort Worth market—for sale and re-shipment to other sections of Texas, to other markets, or to feeding areas in other states for further fattening.

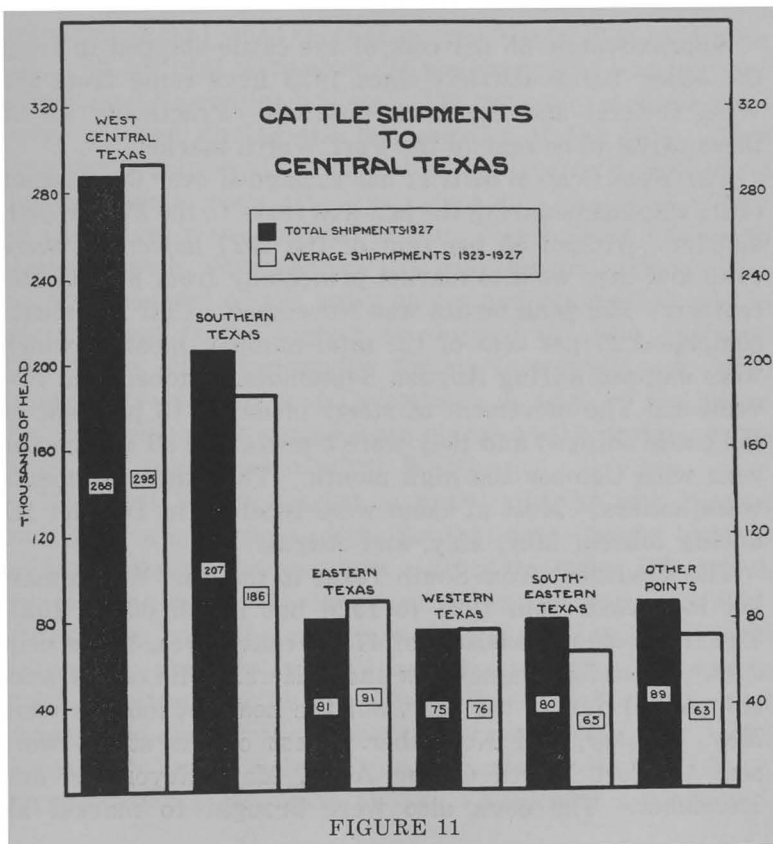
TABLE 32

NUMBER OF CATTLE SHIPPED TO THE CENTRAL DISTRICT OF TEXAS 1923 TO 1927						
Origin	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	25,458	25,810	30,858	25,955	36,222	28,861
II. West Central	314,378	350,767	270,071	249,954	288,036	294,641
III. Central*	339,021	350,070	380,781	270,710	343,246	336,769
IV. Eastern	63,519	98,520	99,651	107,071	80,831	89,918
V. Western	66,549	104,541	38,899	95,349	74,506	75,969
VI. Southern	144,753	175,102	172,002	230,369	206,894	185,824
VII. Southeastern	46,598	49,902	90,160	57,356	79,500	64,703
Total Intrastate	661,255	804,642	701,641	766,054	765,989	739,916
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona		38	180	107	228	111
Arkansas	103	523	697	4	40	273
Colorado:						
Denver				20		4
Other Points	54	172	271	39	128	133
Iowa		113	49	17		36
Kansas:						
Wichita	623	176	301	47	34	236
Other Points	69	565	600	525	219	396
Louisiana:						
New Orleans	177	41				44
Other Points	1,713	4,570	3,666	7,414	30,071	9,487
Mississippi	69	128	37	34		54
Missouri:						
Kansas City	342	260	97	2,442	40	636
South St. Joseph		207	66	49	29	70
Other Points	46	154	199	278	439	223
Nebraska:						
Omaha	25					5
Other Points				366	19	77
New Mexico	1,638	2,973	1,600	2,923	4,023	2,631
Oklahoma:						
Oklahoma City	1,538	1,777	457	786	296	971
Other Points	21,095	18,255	23,271	12,579	16,706	18,381
Other States	228	281	56		144	132
Total Interstate	27,720	30,183	31,547	27,630	52,416	33,900
Total Interstate	27,720	30,183	31,547	27,630	52,416	33,900
Total Intrastate	661,255	804,642	701,641	766,054	765,989	739,916
Total Movement to the Central District	688,975	834,825	733,188	793,684	818,405	773,816

*The shipments within the Central District are not included in the total intrastate movement to the district.

The influence which calf shipments exert upon the seasonal movement of all cattle received at Fort Worth is shown in Figure 10. The other classes are not kept separate by the Stockyards Company. More than 64 per cent of the calves were received at this market during the five-month period from July to November.

The figures of the Fort Worth Stockyards Company, given in Table 31, do not show the points of origin of the receipts. This information is shown in Table 32. It summarizes the number of cattle received into the Central district since 1923 by district and state origins. This record shows that around 96 per cent of the receipts of District III originated in other Texas districts, while only 4 per cent



came from other states. Furthermore, it shows that cattle are received in large numbers from every one of the live-stock districts of the State. Moreover, most of the cattle shipped into this district and also practically all of the intra-district shipments go to Fort Worth. The figures, however, include only railroad shipments. The remaining receipts at Fort Worth were either driven in on foot or brought in by trucks, a method of transportation which has expanded very rapidly during the last few years. The five principal regions shipping to the Central district, principally to Fort Worth, are shown in Fig. 11.

RECEIPTS FROM OTHER TEXAS DISTRICTS

Approximately 65 per cent of the cattle shipped in from the other Texas districts since 1923 have come from the West Central and Southern districts. Practically all of these cattle were sent to the Fort Worth market.

The West Central district has consigned over 60 per cent of its shipments during the last five years to the Fort Worth district. Around 55 per cent of the 1927 movement were cows and they went to market principally from May to December. The peak month was November. Calf shipments comprised 27 per cent of the total number, most of which were shipped during August, September, October, and November. The movement of steers made up 15 per cent of the cattle shipped and they were transferred all during the year with October the high month. The other shipments were heifers. Most of them were received in District III during March, May, July, and August.

The movement from South Texas to the Fort Worth market increased from 1923 to 1926 but it fell off in 1927. The 1927 volume consisted of 47 per cent calves, 36 per cent steers, and 17 per cent cows and heifers. The calves were shipped all during the year, but the heaviest months were May, October, and November. Most of the steers were sent to Fort Worth during April, May, November, and December. The cows also were brought to market all

during the year with the heavy shipments during May and from September to December.

The receipts from the Eastern district were heaviest during the winter months. Approximately 64 per cent of the 1927 receipts were cows, 18 per cent steers, and 18 per cent calves and heifers. The heavy cow shipping season was during the winter. Most of the steers went to market during the winter and summer months. The calves were shipped principally from July to January.

The receipts from the Western district represent only a small portion of the total shipments from that area because of the large volume of business done with northern and western markets and with stocker and feeder buyers. Of the number that were shipped to the Central district during 1927, 53 per cent were cows, 24 per cent calves, 18 per cent steers, and 5 per cent heifers. The majority of these cows were shipped during the last months of the year. This movement represents principally the disposing of old and inferior grade cows after the calves had been sold. Most of the calves were received at Fort Worth from August to January with November as the peak month. These shipments consisted of the early calves and others not sold to stocker and feeder buyers or shipped to other markets. The heavy shipping months for steers were March, May, August, November, and December. A part of the steers shipped during the spring were placed on the grazing areas west and southwest of Fort Worth.

The Fort Worth market is practically the only market outlet for a large part of the Southeastern district because of the presence of fever ticks. Since the Crisp Bill, which forbids the interstate movement of cattle from a tick infested area until the cattle are cleaned and inspected, went into effect, shippers in the quarantine section are forced to send practically all their cattle to the Fort Worth market where they are handled separately in quarantine pens. The areas now under quarantine are shown in Figure 12. A large portion of Districts IV and VI likewise are affected.

Most of the cattle from the Southeastern district are received at Fort Worth during the last half of the year. Approximately 56 per cent of the shipments during 1927 were calves, 31 per cent cows and heifers, and 13 per cent steers. The big calf shipping season extended from April to December with the peak month in August. The movement of cows extended from March to December, with the high month in November. Most of the steers were shipped during March, April, June, and November.

The shipments of cattle from District I to the Fort Worth district have been increasing during this period. The movement during 1927 consisted of 58 per cent cows, 20 per cent steers, 22 per cent calves and heifers. The shipments of cows made from January to March and from July to December represent largely the marketing of old and inferior grade of cows. Most of the better grades of cattle go to northern outlets. The seasonal movement of calves and heifers to Fort Worth was very similar to that of cows. There were definite spring and fall movements for steers. The high months for each of these seasons were May and October.

RECEIPTS FROM OTHER STATES

Even though Fort Worth is primarily a market for Texas cattle, an annual average of 33,899 head has been received from other states during the last five years. Approximately 90 per cent of this number originated in one of the border states; either Oklahoma, Louisiana or New Mexico.

Receipts from "Other Points" Oklahoma.—The annual movement from "Other Points" Oklahoma to this district has averaged 18,381 head since 1923. Most of these cattle were consigned to the Fort Worth market. About 81 per cent of the shipments last year were cows, and they came into this district during the first three and the last four months of the year. The other 19 per cent of the movement were divided equally between steers and calves. The shipments of both of these classes also were divided between the spring and fall months.

Receipts from "Other Points" Louisiana.—The effect of the Mississippi River flood during 1927 is reflected upon the movement of cattle from Louisiana into this district. The shipments during 1927 were more than four times as large as those in any of the previous four years.

The heavy movement during 1927 consisted of 43 per cent calves, 38 per cent steers, and 19 per cent cows. The shipments of all three of these classes were heavy from June to the end of the year. December was the peak month for both steers and calves, while the big cow shipping month was November.

Receipts from New Mexico.—Shipments from New Mexico to District III during 1927 consisted of all classes of cattle. Steers comprised 40 per cent of the total number and were received during the first five months of the year. Cows made up 35 per cent of the shipments and they were loaded during the first half of the year. Approximately 25 per cent of the cattle were calves, most of which were shipped during the spring.

NET MOVEMENT OF CATTLE FROM CENTRAL TEXAS

The Central district is the only one of the seven livestock districts that has shipped in more cattle than have been shipped out. This difference is accounted for by the large number of cattle that are shipped in from other sections and slaughtered at the Fort Worth market. When the number slaughtered is deducted, this district also shows a surplus production. The net outflow has averaged 308,824 head annually since 1923. These movements are shown by years in Table 33.

The greatest net disappearance occurred in 1925 when the outgoing shipments exceeded the receipts more than one-half million head. This heavy diminution occurred during 1925 when cattle were forced on the market, because of the abnormally dry conditions throughout the district. This unusual condition is indicated by the fact that the

number of cattle slaughtered at Fort Worth was greater in 1925 than in any other year since 1917. This heavy liquidation also affected the shipments during 1926 because there were fewer cattle to be marketed—both mature cattle and calves.

TABLE 33

NET MOVEMENT OF CATTLE FROM THE CENTRAL DISTRICT OF TEXAS
1923 TO 1927

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from the District	270,938	273,222	274,049	189,604	226,381	246,839
Total Cattle Slaughtered at Fort Worth	795,000	792,000	987,000	761,000	841,000	835,200
Total Disappearance	1,065,938	1,065,222	1,261,049	950,604	1,067,381	1,082,039
Total Movement of Cattle to the District	688,975	834,825	733,188	793,684	818,405	773,815
Net Disappearance	376,963	230,397	527,861	156,920	248,976	308,224

A comparison of the annual net outflow with the number of cattle retained on farms and ranches is difficult to make in this district because the numbers have varied considerably during the last five years on account of the severe drought which occurred in 1925. The numbers shown in Table 34 are estimates based upon the county distribution of all cattle in Texas according to the Assessors' Annual Report. The district weights were applied to the State estimates of the United States Department of Agriculture

TABLE 34

COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE CENTRAL DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Central District at End of the Year*	Net Outflow of Cattle from the Central District	Per Cent of the Total Number
1923	1,113,000	376,963	33.9
1924	1,067,000	230,397	21.6
1925	826,000	527,861	63.9
1926	993,000	156,920	15.8
1927	953,000	248,976	26.1
5-Yr. Ave. 1923-1927	990,400	308,824	31.2

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

in obtaining the district figures. The effect of the dry condition is shown by the shipment of 63.9 per cent of the entire cattle population to market during 1925. This district probably was affected more than any other section of the State. The small percentage of shipments during 1926 shows the scarcity of cattle and the smallness of the calf crop.

District IV—Eastern Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

The Eastern district is primarily a lumbering and a field, truck, and fruit farming section. Beef cattle production is conducted chiefly as a joint enterprise with farming or as a by-product of the dairy industry.

Cotton is the principal cash crop. Approximately 2,978,000 acres, or 18 per cent of the total cotton acreage picked in 1924 were in the Eastern district.⁶ Figures also show that 28 per cent of all the corn produced in Texas was grown in this territory. Peaches, tomatoes, potatoes, and other fruit and truck crops also contribute to the farm income of Eastern Texas.

The Census shows that the Eastern district had 611,044 head of cattle.⁷ Nearly one-third of these animals were classed as dairy cattle. The dairy industry has been expanding very rapidly in this territory during the last few years. Encouragement has been based upon the facts that District IV has relatively cheap land values, that ample quantities of feeds can be produced locally, and that several large markets for dairy products are accessible.

Beef cattle production, however, is not very important in this part of Texas. The limited areas of suitable grazing lands, the prevalence of the fever ticks, and the competition from farming operations have restricted the production of

⁶United States Census of Agriculture, 1925.

⁷*Ibid.*

beef cattle. The eradication of the fever ticks, especially, has been a difficult problem because the inaccessibility of many of the wooded sections makes it difficult to find every animal on the regular dipping dates.

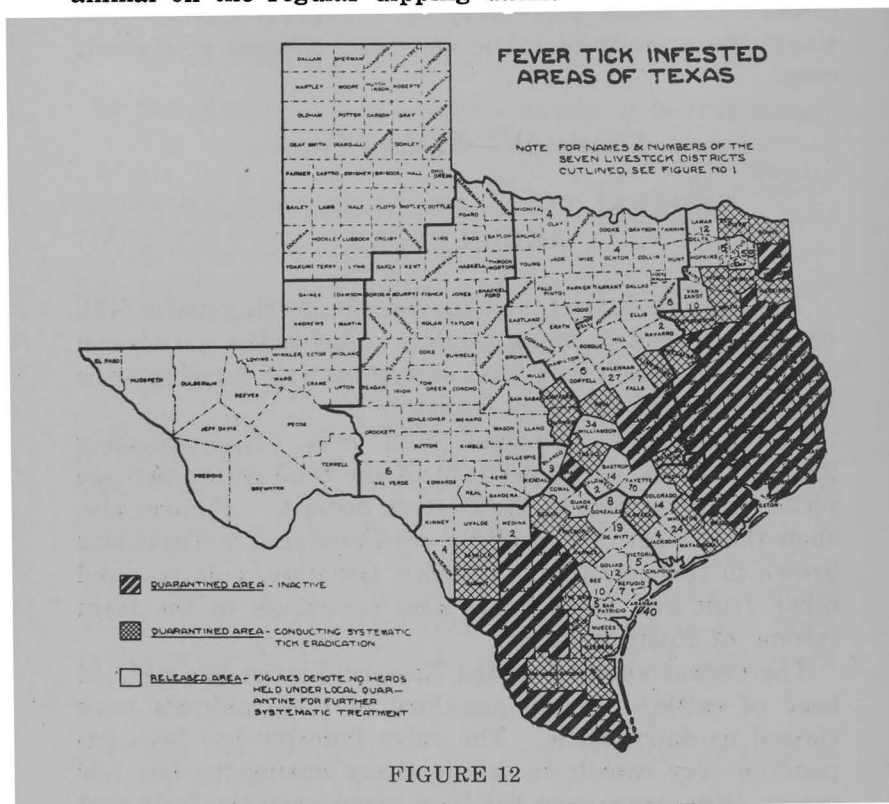


FIGURE 12

Then, too, the industry in some sections of Eastern Texas has been regarded as a side line to other enterprises which has made it more difficult to secure the necessary coöperation in the tick eradication work. The portion of this district under quarantine is shown in Figure 12. The quarantine forbids the shipment of cattle from the infested areas to clean territory unless the animals are free from ticks. While a large expansion of the beef cattle industry in the district is not be expected, some progress can be made by improving the quality of the stock after these unfavorable

factors are overcome. The most promising possibilities for development of this area, however, seem to be in the expansion of the dairy, poultry, and swine industries rather than in beef cattle production.

CATTLE SHIPMENTS FROM EASTERN TEXAS

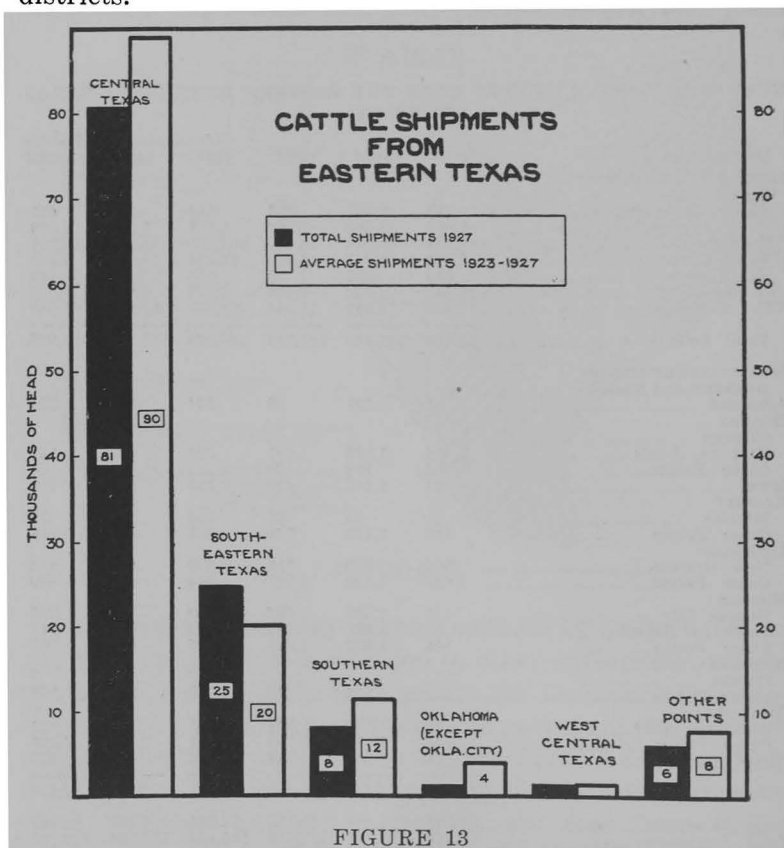
A record of the number of cattle shipped out of the Eastern district annually since 1923 is presented in Table 35. More than 91 per cent of these shipments went to the other districts in Texas, while less than 9 per cent went

Destination	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927
INTRASTATE SHIPMENTS:					
By Districts:					
I. Northwestern	338	1,423	726	504	364 671
II. West Central	2,415	1,680	1,906	1,903	1,541 1,889
III. Central	63,519	98,520	99,651	107,071	80,831 89,918
IV. Eastern*	1,579	2,480	4,819	15,294	15,153 7,865
V. Western	459	222	45	154	64 189
VI. Southern	13,339	21,010	7,539	9,314	8,261 11,893
VII. Southeastern	17,654	14,787	17,846	26,509	24,933 20,346
Total Intrastate	97,724	137,642	127,713	145,455	115,994 124,906
INTERSTATE SHIPMENTS:					
By States and Markets:					
Arkansas	3	181	82	334	518 224
Illinois:					
Chicago					
East St. Louis	1,426	1,963	1,081	396	894 1,152
Other Points	33	352	70		32 97
Iowa	174	1,167	428	1,175	867 762
Kansas:					
Wichita		38	90	222	
Other Points	336	2,472	779	823	673 1,017
Louisiana:					
New Orleans	322	239	115	979	286 388
Other Points	1,645	1,193	1,287	274	247 929
Missouri:					
Kansas City	175	1,485	657	1,059	590 793
South St. Joseph		1,001	89	160	33 257
Other Points	105	1,005	1,015	275	436 567
Nebraska:					
Omaha				27	
Other Points		305	48	100	576 206
Oklahoma:					
Oklahoma City	29	51	154	182	
Other Points	7,426	3,070	3,799	5,201	1,487 4,197
Other States	71	956	724	1,014	624 678
Total Interstate	11,745	15,478	10,418	12,221	7,263 11,425
Total Interstate	11,745	15,478	10,418	12,221	7,263 11,425
Total Intrastate	97,724	137,642	127,713	145,455	115,994 124,906
Total Movement from the Eastern District	109,469	153,120	138,131	157,676	123,257 136,331

direct to other states. The principal outlets are shown graphically in Figure 13.

MOVEMENT TO OTHER TEXAS DISTRICTS

Approximately 72 per cent of the intrastate shipments of cattle from District IV went to the Central district which practically represents the railroad shipments to the Fort Worth market. The movement has averaged 89,918 head annually since 1923. Some cattle are trucked to market from Eastern Texas but the figures are not available by districts.



Approximately 64 per cent of the 1927 movement to Fort Worth consisted of cows. The shipments were fairly heavy

during each month of the year, but the largest volume came to market during the winter months. Steer shipments comprised 18 per cent of the total number and the majority of them were made during the winter and summer months. The other 18 per cent consisted of calves and heifers. Most of them were shipped from July to January.

The second important outlet has been the Southeastern district. The movement has averaged 20,346 head annually during the last five years. Over 70 per cent of the shipments during 1927 were stocker cows destined for grazing areas in District VII. The heavy shipping seasons were during the fall, winter, and spring months. About 14 per cent of the shipments were calves. They were transferred also during the fall, winter, and spring months. A large portion of these calves were billed to packing houses in Houston, Galveston, Beaumont, Port Arthur and local slaughtering establishments. The movement of stocker steers comprised the remaining shipments; they were heaviest during the spring months and from September to December.

The Southern district received the major portion of the remaining shipments from District IV. They consisted largely of cows going to better grazing sections. A part of the movement was steers shipped during the fall and winter months.

MOVEMENT TO OTHER STATES

Since only about 9 per cent of the district's forwardings go out of the State, there are relatively few significant outlets. The most important market for this section outside of Fort Worth has been East St. Louis. Several hundred head also have been sent to Kansas City each year. The movement to grazing areas in Oklahoma has been heavier than to any other state. Kansas and Iowa buyers also have been securing several hundred head of stocker cattle from this district annually.

CATTLE SHIPMENTS TO EASTERN TEXAS

The movement of cattle into this district has been very light since 1923 as compared with the outgoing shipments. The annual receipts have averaged only 8,746 head during the last five years. Approximately 72 per cent of this number came from the other livestock districts of Texas, while other states contributed the remaining 28 per cent of the shipments. The points of origin of all cattle received into this district since 1923 are shown in Table 36.

TABLE 36						
NUMBER OF CATTLE SHIPPED TO THE EASTERN DISTRICT OF TEXAS						
1923 TO 1927						
Origin	1923	1924	1925	1926	5-Yr. Ave.	
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	48	543	645	-----	562	360
II. West Central	461	172	2,170	666	547	803
III. Central	3,887	6,409	8,346	2,505	635	4,356
IV. Eastern*	1,579	2,480	4,819	15,294	15,153	7,865
V. Western	28	236	267	-----	311	168
VI. Southern	151	205	522	53	38	194
VII. Southeastern	105	26	348	388	1,072	388
Total Intrastate	4,680	7,591	12,298	3,612	3,165	6,269
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arkansas	75	101	45	-----	679	180
Louisiana:						
New Orleans	97	-----	-----	-----	-----	19
Other Points	549	630	246	3,178	6,073	2,135
Oklahoma:						
Oklahoma City	-----	-----	-----	-----	-----	-----
Other Points	-----	68	-----	32	455	111
Other States	-----	121	-----	39	-----	32
Total Interstate	721	920	291	3,249	7,207	2,477
Total Interstate	721	920	291	3,249	7,207	2,477
Total Intrastate	4,680	7,591	12,298	3,612	3,165	6,269
Total Movement to the Eastern District	5,401	8,511	12,589	6,861	10,372	8,746

*The shipments within the Eastern District are not included in the total intrastate movement to the district.

*The shipments within the Eastern District are not included in the total intrastate movement to the district.

RECEIPTS FROM OTHER TEXAS DISTRICTS

The majority of cattle that have been shipped into Eastern Texas since 1923 came from District III which includes the Fort Worth market. The movement reached a peak in 1925 when cattle were forced out of other sections because of the drought and grass shortage during that year. Since

that time, however, receipts from the Fort Worth market have been declining.

The largest contributing district during 1927 was South-eastern Texas. This movement represented the transfer of stocker cows and steers to grazing areas in District IV. The West Central district shipped over two thousand head to this section during the dry year of 1925.

RECEIPTS FROM OTHER STATES

Practically 90 per cent of the cattle received from other states during the last five years have come from Louisiana. The receipts from that state were heavy, especially during 1927 because of the Mississippi River flood which forced the movement of livestock to other sections. Small shipments came in from Arkansas and Oklahoma also, especially during 1927.

NET MOVEMENT OF CATTLE FROM EASTERN TEXAS

A measure of the surplus producing capacity of this area is obtained from the net movement of the shipments. The annual net outflow since 1923 is shown in Table 37.

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from the District....	109,469	153,120	138,131	157,676	123,257	136,331
Total Movement of Cattle to the District....	5,401	8,511	12,589	6,861	10,372	8,746
Net Outflow....	104,068	144,609	125,542	150,815	112,885	127,585

The heavy outflow of cattle as compared with the light inflow into the district indicates that most of the surplus is raised in this territory unless the outgoing shipments represent a depletion of the breeding herds. It is necessary, therefore, to compare the annual net movement with the

estimated number of cattle retained on farms and ranches during this period. The annual net outflow since 1923 has averaged 22 per cent of the cattle population. The heaviest liquidation occurred in 1926 when the net outflow amounted to 28.7 per cent of the total number of cattle in the district. This area was not affected as much by the drought in 1925 as were some of the other districts, and buyers secured a larger proportion of their cattle from this section. The figures for each of the years during this period are presented in Table 38.

TABLE 38

COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE EASTERN DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Eastern District at End of the Year*	Net Outflow of Cattle from the Eastern District	Per Cent of the Total Number
1923	655,000	104,068	15.9
1924	627,000	144,609	23.1
1925	590,000	125,542	21.3
1926	526,000	150,815	28.7
1927	504,000	112,885	22.4
5-Yr. Ave. 1923-1927	580,400	127,585	22.0

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

District V—Western Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

The Western district includes the Trans-Pecos Region and several counties located east of this area which conduct a similar livestock program. Only a small amount of general farming is carried on in this district. Cotton, alfalfa, and grain sorghums are the principal crops grown, according to the last agricultural Census.⁸ Approximately 284,000 acres of cotton and 63,000 acres of grain sorghums were

⁸United States Census of Agriculture, 1925.

harvested in 1924. Most of the cotton and alfalfa was grown in the irrigated area near El Paso, while the grain sorghums were produced principally in the northeastern corner of the district.

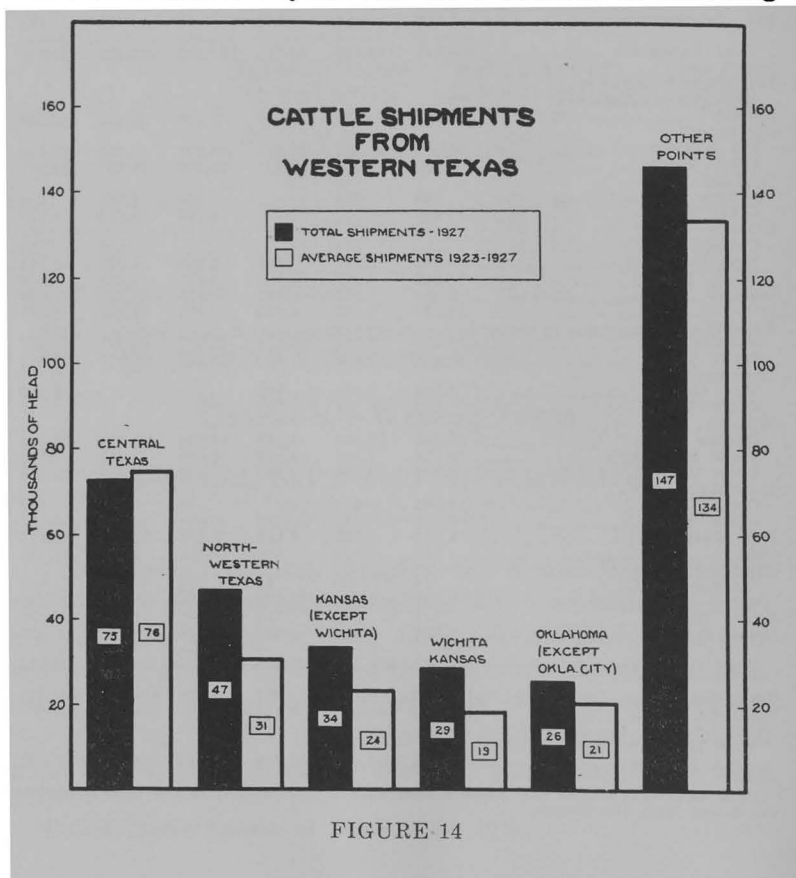
TABLE 39

NUMBER OF CATTLE SHIPPED FROM THE WESTERN DISTRICT OF TEXAS
1923 TO 1927

Destination	1923	1924	1925	1926	1927	5-Yr. Ave.
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	25,713	21,635	34,021	29,550	46,545	31,493
II. West Central	5,218	5,622	7,695	16,635	26,770	12,388
III. Central	66,549	104,541	38,899	95,349	74,506	75,969
IV. Eastern	28	236	267		311	168
V. Western*	49,455	46,644	43,649	40,059	46,056	45,173
VI. Southern	5,752	17,305	7,703	5,561	18,271	10,919
VII. Southeastern	1,092	464	540	67	23	437
Total Intrastate	104,352	149,803	89,125	147,162	166,426	131,374
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona	582	658	1,039	2,175	2,495	1,390
California:						
Los Angeles	21,877	17,793	13,374	16,271	8,334	15,530
Other Points	9,866	11,388	18,281	16,670	11,337	13,508
Colorado:						
Denver	668	346		889	1,731	727
Other Points	918		2,687	4,776	8,210	3,318
Illinois:						
Chicago					275	55
East St. Louis	894	1,913	791	2,795	1,677	1,614
Other Points	11,692	7,290	4,303	5,673	9,282	7,648
Indiana	2,654	1,065	1,707	899	1,978	1,660
Iowa	12,148	8,166	6,130	8,213	11,427	9,217
Kansas:						
Wichita	13,655	27,734	15,576	11,007	28,784	19,351
Other Points	10,355	31,631	27,653	15,999	33,575	23,842
Louisiana:						
New Orleans	3,852	2,888	185		119	1,409
Other Points	263	64	757			217
Missouri:						
Kansas City	52,125	56,008	8,169	10,294	9,472	27,214
South St. Joseph	9,924	7,045	1,617	2,052	945	4,317
Other Points	3,393	1,430	618	2,677	3,472	2,318
Nebraska:						
Omaha	1,599	558		23		436
Other Points	9,868	3,871	14,565	9,848	10,003	9,631
New Mexico	5,340	6,036	3,346	6,000	12,131	6,571
Ohio	552		659	2,895	3,633	1,548
Oklahoma:						
Oklahoma City	54	165	64	177	77	107
Other Points	10,381	16,021	38,769	13,198	25,959	20,866
South Dakota	141		1,117	1,000	2,854	1,022
Other States	1,552	72	1,267	139	1,946	995
Total Interstate	184,353	202,142	162,674	133,670	189,716	174,511
Total Interstate	184,353	202,142	162,674	133,670	189,716	174,511
Total Intrastate	104,352	149,803	89,125	147,162	166,426	131,374
Total Movement from the Western District						
	288,705	351,945	251,799	280,832	356,142	305,885

*The shipments within the Western District are not included in the total intrastate movement from the district.

Without the encroachment of any considerable crop acreage, this district continues to be the outstanding specialized cattle producing territory of the State. Ranching still is conducted on a large scale. This area includes the Highland Hereford section which is well known to cattle feeders and buyers in other states. The producers in this section are the pioneers in building up the quality of their herds, and their efforts have been very successful. The average quality of all cattle probably is higher in this district than that in any other section of the State. The stockmen have been not only good producers, but also excellent merchandisers; they developed a high quality product and then made direct contacts with feeder buyers who were desirous of obtaining



the best type of feeder stock. The result is that the demand for Highland calves and steers is good. They can be found in feed lots all over the Corn Belt and adjoining states and even in Colorado and California. Many loads of these cattle, when finished, have brought top prices on the open markets and have won prizes at several of the large live-stock expositions.

CATTLE SHIPMENTS FROM WESTERN TEXAS

A summary of the cattle movement from the Western district since 1923 is presented in Table 39. This record shows that 131,374 head, or 43 per cent of the total shipments during this period went to other districts of Texas while 57 per cent were sent to other states. The five largest outlets are shown graphically in Figure 14.

MOVEMENT TO OTHER TEXAS DISTRICTS

The annual intrastate movements from District V since 1923 have averaged 130,245 head. Approximately 58 per cent of these cattle went to District III which includes the Fort Worth market. Most of them were consigned to this market; others were placed in pastures west and southwest of Fort Worth where they were fed cottonseed cake or corn on grass. The heavy shipping season during 1927 was from August to January. Over one-half of the cattle sent to the Central district was cows, the majority of which was shipped from August to January. The calf shipments comprised 24 per cent of the total number and the heavy movement was from August to January. Approximately 18 per cent of the cattle were steers. The major portion of them were sent to District III during March, May, August, November, and December. The remaining shipments were classed as heifers. The heavy shipping season extended from July to January.

The movement to the Northwestern district also has been heavy. About 24 per cent of the intrastate shipments during the five-year period went to this area for further

grazing before going on the market. The movement during 1927 consisted of 50 per cent steers, 32 per cent cows and heifers, and 18 per cent calves. May was the heavy steer shipping month. The other classes were transferred during February, March, June, July, September, October, November, and December. Most of the cows and heifers were shipped from September to December with the peak in November. Calf shipments were heaviest in February, October, November, and December.

The West Central district, likewise, has taken a large number of cattle from District V. The movement during the last two years especially has been heavy. These shipments represent the transfer of stocker cattle to grazing areas and to breeding herds. Approximately 45 per cent of the movements during 1927 were cows, the bulk of which were shipped in June and from August to November. About 27 per cent of the movement were calves and most of them moved from September to January. The others were shipped during the spring. Steers comprised 25 per cent of the total number transferred during 1927, the major portion of the shipments being made during May, September, October, and November.

The Southern district has been receiving increased numbers from District V since 1923. Fifty per cent of the heavy movements during 1927 were cows, 26 per cent steers, 18 per cent calves, and 6 per cent heifers. The bulk of all these classes was transferred during the last six months. August was the peak shipping month for cows, October for steers, and August and November for calves.

MOVEMENT TO OTHER STATES

This district sends cattle direct both to market and to grazing and feeding areas. The principal markets are Kansas City, Wichita, and Los Angeles. The important grazing and feeding areas are in Kansas, Oklahoma, California, Nebraska, Iowa, New Mexico, and Illinois.

Movement to the Kansas City Market.—The movement of cattle from this district direct to Kansas City since 1923 has

been greater than to any other out-of-state market. At the same time, however, the trend of the movement has declined sharply. The shipments decreased from 52,125 head in 1923 to 9,472 head in 1927. This heavy decrease was offset principally by increases to grazing and feeding areas in the different sections of the country.

The shipments during 1927 were divided about equally between steers, cows, and calves. The heavy shipping months for steers were May, October, and November; for cows, October and November; and for calves, November and December.

Movement to the Wichita Market.—During the last three years, a larger number of cattle has been billed direct to the Wichita market from this district than to Kansas City. The movement has increased from 13,655 head in 1923 to 28,784 head in 1927. This upward tendency is contrary to the downward trend that has characterized the direct movement to most of the market centers during the five-year period. A good demand for the type of cattle shipped from the Western district coupled with better transportation service on the Orient Railroad which connects this territory with the Wichita market accounts for this increased volume.

The shipments of steers comprised 43 per cent of the 1927 movements, the greater portion of which was sent to Wichita in April, November, and December. About 33 per cent of the total number were calves which were shipped in April, May, November, and December. Approximately 21 per cent of the movement were cows. The majority of them were billed to this market during May, November, and December. Heifers comprised the other 3 per cent and they were shipped during the last three months of the year.

Movement to the Los Angeles Market.—The third largest market outside of Texas for the Western district since 1923 has been Los Angeles. Nevertheless, the trend of the movement to this market has been definitely downward. The number has decreased from 21,877 head in 1923 to only 8,334 head in 1927. The cost of transportation and competition from other sections have brought about this decrease.

Approximately 50 per cent of the shipments during 1927 were calves, the majority of which were forwarded in January. Cows made up 40 per cent of the total number. Most of those going to this Pacific Coast market during November and the first three months of the year were old cows destined for the alfalfa fields in California. The remaining 10 per cent were steers and were shipped principally in March.

Movement to "Other Points" Kansas.—The shipments of cattle from this district to grazing and feeding areas in Kansas have increased from 10,355 head in 1923 to 33,664 head in 1927. The number shipped to Kansas during 1927 exceeded that sent to any other state from this section.

Over one-half of the number sent to these sections in 1927 was steers. Most of them were billed in April, May, and November. The bulk of the calf movement, which comprised 35 per cent of the total number, was shipped during November and December. Cow shipments made up 8 per cent; they were placed on Kansas grass in May, while the others were shipped with the calves in the late fall months.

Movement to "Other Points" Oklahoma.—The shipments to grazing areas in Oklahoma from District V have averaged 20,886 head annually since 1923. This movement, like that to Kansas, increased during this period from 10,381 head to 25,959 head. The characteristic difference between the Oklahoma and Kansas movements is that the former was steers and cows while the latter was steers and calves.

Steer shipments to Oklahoma in 1927 comprised 43 per cent of the total and were made during April, May, June, July, October, and November. Approximately 40 per cent were cows, most of which were transferred during April, July, and December. About 17 per cent were calves and heifers. The major portion of them was shipped during April, May, November, and December.

Movement to "Other Points" California.—California buyers have furnished an important market outlet for cattle in the Western district. An annual average of 13,508 head

of cattle has been sent direct to "Other Points" California since 1923. Approximately 55 per cent of the shipments during 1927 were steers, 43 per cent cows, and 2 per cent calves. Practically all the steers were billed during October and November, while the movement of cows extended from October to December after the calves had been sold. Most of these cow shipments represent aged and inferior breeding stock being taken to California for winter grazing on alfalfa pastures.

Movement to "Other Points" Nebraska.—The Western district has billed an average of 9,631 head of cattle annually since 1923 direct to grazing areas in Nebraska. During 1927, steers comprised 70 per cent of the total movement and practically all of them were shipped in May. The other 30 per cent represented calves and they also were received in Nebraska in May.

Movement to Iowa.—The direct forwardings of cattle from District V to Iowa feeders have averaged 9,217 head annually during the last five years. Approximately 59 per cent of the 1927 movement were calves, the major portion of which was shipped in April, October, and November. Steer shipments represented 31 per cent of the total number and the majority were received in Iowa in May, June, October, and November. The transfer of cows and heifers accounted for the remaining 10 per cent. Most of the cows were shipped in July and October, while the heifers were loaded out in June.

Movement to New Mexico.—The shipments to New Mexico from the Western district have averaged 6,571 head annually since 1923. The number increased from 5,340 head in 1923 to 12,131 head in 1927. Approximately 60 per cent of the large volume during 1927 were cows, 31 per cent calves, and 9 per cent steers. The heavy shipping months for cows were September, November, and December; for calves, April, May, September, and November; and for steers, February and August.

Movement to "Other Points" Illinois.—The shipments to Illinois points were primarily feeder cattle. The movement

has averaged 7,648 head annually since 1923. Approximately 62 per cent of the 9,282 head shipped during 1927 were calves. The majority of them were billed in November and December. A small movement occurred also in April and May. One-third of the total cattle shipped were steers, most of which were received in Illinois in May, June, November, and December. The other few shipments were cows and heifers which were made during June, July, and November.

CATTLE SHIPMENTS TO WESTERN TEXAS

The movement of cattle into the Western district from other sections has been small as compared with the outgoing shipments. An annual average of 44,202 head has been shipped into this territory since 1923. The heaviest receipts occurred in 1925 when the drought made range conditions in other sections of Texas and New Mexico worse than in District V. About 42 per cent of these cattle came from the other six livestock districts of Texas, while 58 per cent originated in other states. The annual movement since 1923 is given in Table 40.

RECEIPTS FROM OTHER TEXAS DISTRICTS

Over one-third of the receipts from other Texas districts came from the adjoining territory, District II. Practically all of the 1927 movement from that section were cows and steers which were shipped to the Western district during October, November, and December for grazing and breeding purposes.

The movement from Southern Texas to the Western district, like that from District II, consisted of steers and cows, most of which were shipped during August, September, and October. The shipments, especially during 1925, were heavy because of the dry range conditions in South Texas. The Northwestern section also has been sending more than three thousand head of cattle annually to District V. The movement during 1927 was largely cows and calves sent to the grazing areas of Western Texas.

TABLE 40

NUMBER OF CATTLE SHIPPED TO THE WESTERN DISTRICT OF TEXAS 1923 TO 1927						
Origin	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927	
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	4,130	1,615	5,767	2,333	2,359	3,241
II. West Central	2,597	5,838	8,621	8,173	7,244	6,495
III. Central	1,615	1,950	11,726	2,569	1,765	3,925
IV. Eastern	459	222	45	154	64	189
V. Western*	49,455	46,644	43,649	40,059	46,056	45,172
VI. Southern	3,513	3,591	9,678	1,637	2,592	4,202
VII. Southeastern	111	166	2,919	-----	-----	639
Total Intrastate	12,425	13,882	38,756	14,866	14,024	18,691
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona	6,710	3,397	6,652	7,604	13,513	7,575
California:						
Los Angeles	777	-----	88	-----	-----	173
Other Points	171	-----	528	112	618	286
Colorado:						
Denver	125	73	-----	79	94	74
Other Points	-----	44	161	49	-----	51
Iowa	-----	30	30	69	109	48
Kansas:						
Wichita	73	169	375	17	448	216
Other Points	-----	310	889	201	256	332
New Mexico	4,680	11,583	23,600	24,008	16,755	16,125
Oklahoma:						
Oklahoma City	2	-----	-----	-----	-----	-----
Other Points	62	3	881	40	125	222
Other States	474	235	642	207	486	409
Total Interstate	13,074	15,844	33,846	32,386	32,404	25,511
Total Interstate	13,074	15,844	33,846	32,386	32,404	25,511
Total Intrastate	12,425	13,882	38,756	14,866	14,024	18,691
Total Movement to the Western District	25,499	29,226	72,602	47,252	46,428	44,202

*The shipments within the Western District are not included in the total intrastate movement to the district.

*The shipments within the Western District are not included in the total intrastate movement to the district.

Most of the movement from District III originated at the Fort Worth market. The records for 1927 show shipments of stocker cows, steers, and calves, the bulk of which were received in the Western district during the fall months to replace cattle previously sent to market, grass, or feed lots.

MOVEMENT FROM OTHER STATES

New Mexico has been the source of 37 per cent of all the cattle received in District V since 1923. This state supplied 64 per cent and Arizona 30 per cent of the number received from points outside of Texas. Approximately 64 per cent of the receipts from New Mexico during 1927 were

cows and 31 per cent were calves. Most of the cows were shipped in January and June and from August to December. The calves were received in January, October, November, and December. The movement from Arizona to the Western district during 1927 differed from the New Mexico shipments in that very few calves were included in the receipts from Arizona. Instead, steers were shipped; they comprised 30 per cent of the total number received from Arizona. Practically all of them were shipped in May. The heavy cow movements were made in January, May, June, October, and November.

NET MOVEMENT OF CATTLE FROM WESTERN TEXAS

The movement of cattle from the Western district has exceeded the incoming shipments by an average of 261,554 head annually during the last five years. The annual figures since 1923 are summarized in Table 41.

	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
Total Movement of Cattle from the District.....	288,705	351,945	251,799	276,529	354,802	304,756
Total Movement of Cattle to the District.....	25,499	29,226	72,602	47,252	46,428	44,202
Net Outflow.....	263,206	322,719	179,197	229,277	308,374	260,554

The large net movement from this district would indicate the importance of Western Texas as a cattle producing area, if the bulk of the net outflow represented the annual increase of cattle production. But since the number of cattle retained in this district has decreased during this period, it is necessary to compare the annual net movement, exclusive of local and farm slaughterings and death losses, with the estimated number of cattle on farms and ranches when measuring the surplus producing capacity of the

district. This comparison is made for each of the last five years in Table 42. The percentage of the total number of cattle disposed of is higher in this district than any of the others. This heavy turnover is attributed, in part, to the relatively high percentage of the calf crop, to the early marketing of the cattle, and to the small death losses. Disposition was heavy especially during 1927 because of the favorable prices paid for cattle.

TABLE 42

COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE WESTERN DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Western District at End of the Year*	Net Outflow of Cattle from the Western District	Per Cent of the Total Number
1923	589,000	263,206	44.7
1924	564,000	322,719	57.2
1925	531,000	179,197	33.7
1926	525,000	229,277	43.7
1927	505,000	308,374	61.1
5-Yr. Ave. 1923-1927	542,800	260,554	48.1

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

District VI—Southern Texas

GENERAL TYPE AND CHARACTER OF AGRICULTURE

The Southern district is a widely diversified agricultural area. It is not only an extensive cattle raising section but also a big producer of several important crops. The territory included in District VI is shown in Figure I.

Cotton is the principal crop grown in this district. The most recent Census shows that Southern Texas harvested 2,072,000 acres, or 12 per cent of the cotton acreage of the State.⁹ During the same year 14 per cent of the corn acreage and 6 per cent of the grain sorghums were grown there.

⁹United States Census of Agriculture, 1925.

The Lower Rio Grande Valley, the southern portion of this district, has developed into one of the important citrus fruit producing areas of the country. A large acreage of truck crops also is planted in the territory. An irrigated section in the western part of the district, known as the Winter Gardens, is a heavy producer of various truck crops, including spinach, onions, and cabbage.

The most recent estimates of the number of cattle on farms and ranches show that the Southern district ranks second with 1,065,000 head, or 19 per cent of the total number of cattle in the State. District VI is primarily a cattle grazing section and, in addition, the counties along the coast are important as breeding areas. This district generally has made slower progress in building up the quality of the breeding herds than the western part of the State. On the other hand, some of the largest and most noted cattle breeders of Texas are located in this section. The results of their efforts have begun to spread not only over the Southern district but also over many other parts of the country. The announcement of the purchase of a herd of high grade range cattle and registered bulls by cattlemen in this section is not infrequent.

Although District VI probably will continue to be largely a grazing and breeding territory, some of the ranchmen in certain localities have begun to feed on a commercial scale. Over 30,000 head of lambs were fed in the northwestern corner of this district during 1927. The principal feeds used were cane, hegari, milo, and corn, and most all of these crops were produced locally. The feeders were very successful with their relatively new undertaking.

A serious problem which has confronted the cattlemen of this district has been the matter of tick eradication. At the present time, over one-half of this district is under quarantine.¹⁰ This restriction prevents the shipment of livestock to clean areas without first complying with the regulations of the Livestock Sanitary Commission for intra-state movements and of the Bureau of Animal Industry for

¹⁰See Figure 12.

interstate shipments. The progress of this work has been retarded because many of the holdings are so large that it has been difficult to carry out eradication methods. One observer stated that the pasture rotation method with occasional dipping would greatly facilitate the cleaning up the ticks in this territory. Then, also, the border counties along the Rio Grande have had to combat the infestation of ticks from Mexico where no systematic eradication work has been conducted.

TABLE 43

NUMBER OF CATTLE SHIPPED FROM THE SOUTHERN DISTRICT OF TEXAS
1923 TO 1927

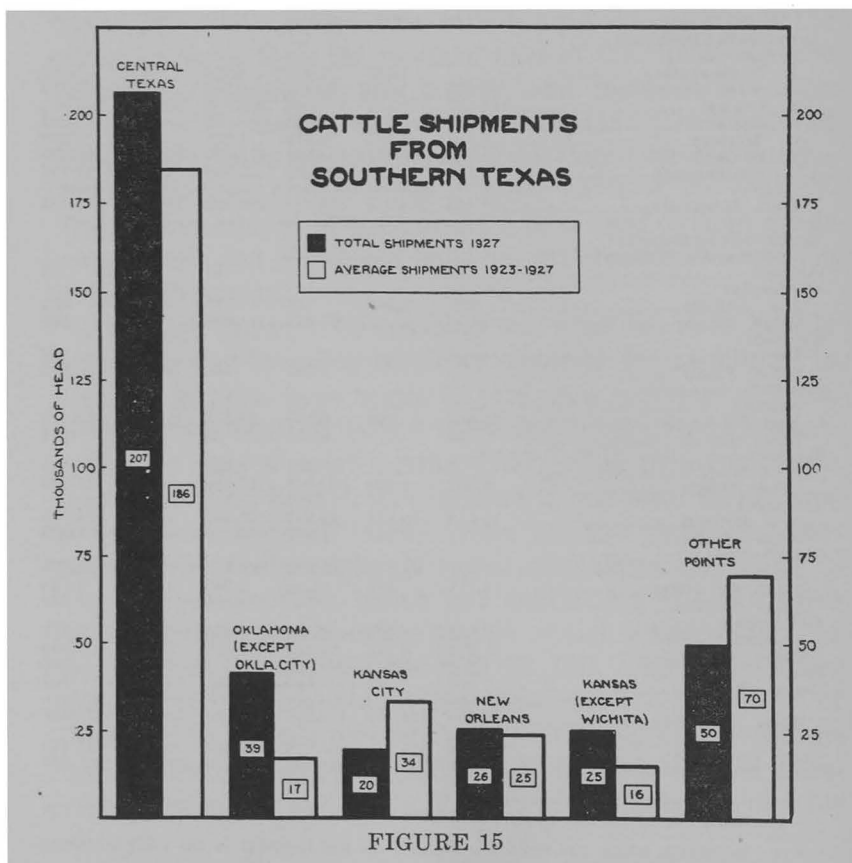
Destination	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern		1,286	1,485	2,952	121	1,169
II. West Central	2,829	1,441	18,079	3,965	9,298	7,122
III. Central	144,753	175,102	172,002	230,369	206,894	185,824
IV. Eastern	151	205	522	53	38	194
V. Western	3,513	3,591	9,678	1,637	2,592	4,202
VI. Southern*	93,857	96,217	101,348	111,639	129,364	106,485
VII. Southeastern	15,922	23,285	17,022	22,046	17,586	19,172
Total Intrastate	167,168	204,910	218,788	261,022	236,529	217,683
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arizona	30	15		31	310	77
California:						
Los Angeles	256	2,055	128	30	709	636
Other Points			1,075	600		335
Colorado:						
Denver					62	12
Other Points			1,295	666		392
Illinois:						
Chicago						
East St. Louis	23,064	34,796	6,068	24,108	14,124	20,432
Other Points	92		1,591	26	59	354
Kansas:						
Wichita			377	3,381	210	794
Other Points	8,397	3,109	24,043	17,690	25,375	15,723
Louisiana:						
New Orleans	14,618	28,936	23,213	30,837	26,046	24,730
Other Points	3,731	9,165	8,567	2,148	569	4,836
Missouri:						
Kansas City	45,531	41,150	13,683	49,327	19,939	33,926
South St. Joseph	2,777	622		1,969	821	1,238
Other Points				11,696	497	2,439
Oklahoma:						
Oklahoma City	5,754	8,225	2,662	7,430	2,815	5,377
Other Points	11,322	6,111	19,456	9,453	39,123	17,093
South Dakota		3,772				754
Other States	808	293	158	261	27	309
Total Interstate	116,380	138,249	102,316	159,653	130,686	129,457
Total Interstate	116,380	138,249	102,316	159,653	130,686	129,457
Total Intrastate	167,168	204,910	218,788	261,022	236,529	217,683
Total Movement from the Southern District	283,548	343,159	321,104	420,675	367,215	347,140

*The shipments within the Southern District are not included in the total intrastate movement from the district.

CATTLE SHIPMENTS FROM SOUTHERN TEXAS

A record of the shipments of cattle from the Southern district since 1923 is presented in Table 43. The annual movement has averaged 347,428 head during this period. Approximately 63 per cent of these cattle were sent to the other Texas districts, while 37 per cent went direct to other states.

A comparison of the cattle shipments during 1927 with the annual average movement for the five-year period from this district to the principal outlets is shown graphically in Figure 15.



MOVEMENT TO OTHER TEXAS DISTRICTS

The annual movement of cattle to District III has averaged 185,601 head, or 85 per cent of the intrastate shipments and 54 per cent of all the cattle shipped from the Southern district since 1923. Practically all of this heavy movement went to the Fort Worth market. There are two definite movements of South Texas cattle—spring and fall. The spring shipments, which began in March and extended through June, comprised 41 per cent of the total number shipped during 1927. The heavy shipping spring months were April and May. Approximately 47 per cent of these cattle were steers, 37 per cent calves, and 16 per cent cows and heifers. The fall movement, which accounted for one-half of the 1927 shipments, extended from August to December. Around 55 per cent of these cattle were calves, 29 per cent steers, and 16 per cent cows and heifers. For the entire year, 47 per cent of the cattle were calves. The heavy shipping months were May, October, and November. Steer shipments comprised 36 per cent of the total number sent to market, the majority of which moved during April, May, November, and December. The movement of cows, which made up 16 per cent of the total, was fairly uniform throughout the year but showed small peaks in May and November.

The Southern district also has sent a considerable number of cattle to Southeastern Texas during the last five years. The shipments in 1927 consisted of 47 per cent calves, 31 per cent steers, and 22 per cent cows. Most of the calves were shipped during the first four months and during November and December. Some of these calves were sold to slaughtering establishments and others were placed on grass. The stocker steers were transferred during June, July, November, and December. The cow movement was fairly uniform throughout the year except for the light loadings during the summer months.

District II has received a considerable number of stocker cattle from South Texas, particularly during 1925 and 1927.

The movement in 1925 resulted from the dry range conditions in District VI, while the 1927 shipments were made to re-stock the ranges in the West Central district. Approximately 49 per cent of the cattle shipped during 1927 were steers, 29 per cent cows, and 22 per cent calves. April, May, and October were the heavy shipping months for steers; January, August, October, November, and December for cows; and March, April, August, and October for calves.

MOVEMENT TO OTHER STATES

The principal markets which have been receiving cattle direct from District VI are Kansas City, New Orleans, and East St. Louis. The movement from South Texas to grazing areas in Oklahoma and Kansas also has been very heavy.

Movement to the Kansas City Market.—Although the number of cattle received at Kansas City direct from this district has averaged 33,926 head annually, the trend of the movement has been downward. The shipments decreased from 45,531 head in 1923 to 19,939 head in 1927.

Approximately 90 per cent of the 1927 shipments were steers which went to market during April, May, June, October, and November. The remaining 10 per cent was divided between cows and calves. The cows were shipped during the first six months, while the calves were sent to market in May, June, November, and December.

Movement to the New Orleans Market.—The annual movement of cattle direct from Southern Texas to New Orleans has averaged 24,730 head during the last five years. The trend of the shipments to this market has been upward. The number increased from 14,618 head in 1923 to 26,046 head in 1927. The movement from this district to New Orleans during 1927 exceeded that direct to the Kansas City market.

Over 93 per cent of the 1927 shipments from District VI to New Orleans were calves. An unusual characteristic of this movement was the absence of definite spring and fall

shipments. The tendency has been to distribute the number more evenly over the entire year as they are needed in New Orleans, because this market can absorb only a limited number at any one time. Nevertheless, a small peak occurred during the summer months. The shipment of cows and steers was very light during 1927.

Movement to the East St. Louis Market.—The movement of cattle direct from District VI to the East St. Louis market has been very irregular since 1923. The number fluctuated between 34,796 head in 1924 and 14,124 head in 1927. In contrast with the movement to New Orleans, over 84 per cent of cattle that went direct to East St. Louis last year were steers and the major portion of them was shipped during April, May, June, and November. The scattered shipments of cows during the first part of the year and during October comprised 12 per cent of the total movement. The remaining shipments were calves sent to East St. Louis during October.

Movement to "Other Points" Oklahoma.—The transfer of cattle direct from the ranges of District VI to pastures in Oklahoma has been increasing during the past five years. The movement increased from 11,322 head to 39,123 head in 1927 which was the largest consignment to any of the states from this district. Around 98 per cent of these cattle were steers and practically all of them were shipped to Oklahoma in April.

Movement to "Other Points" Kansas.—Sending cattle direct to grazing areas in Kansas from the Southern district, likewise, has been increasing during the last five years. The number increased from 8,397 head in 1923 to 25,375 head in 1927. Steer shipments comprised 81 per cent of the 1927 movement and most of them were sent there in April and May. The spring movement of cows comprised 13 per cent of the total number. The other cattle were calves shipped in February, May, and December.

CATTLE SHIPMENTS TO SOUTHERN TEXAS

District VI has received an average of 65,644 head of cattle annually since 1923. Approximately 95 per cent of them came from the other six livestock districts of Texas, while 5 per cent were received from other states. Table 44 shows the points of origin for the shipments of cattle into the Southern district during the last five years.

TABLE 44

NUMBER OF CATTLE SHIPPED TO THE SOUTHERN DISTRICT OF TEXAS
1923 TO 1927

Origin	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern	672	2,538	521	495	106	866
II. West Central	14,481	20,385	16,131	18,917	24,337	18,850
III. Central	19,043	24,440	17,368	8,000	10,025	15,775
IV. Eastern	13,339	21,010	7,539	9,314	8,261	11,893
V. Western	5,752	17,305	7,703	5,561	18,271	10,919
VI. Southern*	93,857	96,217	101,348	111,639	129,364	106,485
VII. Southeastern	29,250	28,671	14,257	24,483	16,599	22,652
Total Intrastate	82,537	114,349	63,519	66,770	77,599	80,955
INTERSTATE SHIPMENTS:						
By States and Markets:						
Florida	-----	-----	253	-----	881	227
Georgia	-----	-----	-----	-----	1,293	259
Kansas:						
Wichita	30	6	-----	-----	-----	7
Other Points	5,821	-----	195	-----	88	1,221
Louisiana:						
New Orleans	-----	2	-----	-----	676	135
Other Points	-----	40	-----	241	3,025	661
Missouri:						
Kansas City	-----	-----	118	78	12	42
South St. Joseph	-----	-----	-----	-----	-----	-----
Other Points	17	-----	15	-----	31	13
New Mexico	-----	513	-----	-----	-----	103
Oklahoma:						
Oklahoma City	-----	11	-----	-----	-----	2
Other Points	1,421	218	169	-----	-----	362
Tennessee	-----	33	-----	-----	278	62
Wisconsin	1,816	256	1,824	1,745	2,119	1,552
Other States	56	59	7	151	809	216
Total Interstate	9,161	1,138	2,581	2,215	9,212	4,862
Total Interstate	9,161	1,138	2,581	2,215	9,212	4,862
Total Intrastate	82,537	114,349	63,519	66,770	77,599	80,955
Total Movement to the Southern District	91,698	115,487	66,100	68,985	86,811	85,817

*The shipments within the Southern District are not included in the total intrastate movement to the district.

RECEIPTS FROM OTHER TEXAS DISTRICTS

The Southern district is the grazing ground for the surrounding districts. Since 1923, heavy shipments have

been received from every district in Texas except the Northwestern section. The largest number for the five-year period came from District VII. About 69 per cent of the 1927 movement were steers shipped principally during the last half of the year with the peak in September. Cow shipments made up 27 per cent of the total and were distributed over the entire year, but with heaviest loadings in August and October. Calf shipments were made mostly during March, June, and July.

The heaviest movements to the Southern district during 1927, however, originated in the West Central and Western districts. The trends of the shipments from both of these districts have been upward since 1923. The greater part of both of these movements during 1927 consisted of cows and steers. The heavy cow shipping months were July and August, while most of the steers came in during the fall months.

Since 1923, District VI has received an annual average of 15,775 head of cattle from the Central district—which was principally from the Fort Worth market. Most of these cattle were stockers cows and steers sent back to grazing areas from the Fort Worth market. During 1927, 46 per cent were steers, 41 per cent cows, and 12 per cent calves and heifers. These shipments were scattered over the year, with a peak season from July to October.

The Eastern district has sent an annual average of 11,893 head of cattle to District VI since 1923, but the trend has been downward. Approximately 58 per cent of the light volume during 1927 were cows, 33 per cent steers, and 8 per cent calves and heifers. The heavy shipping months were January, September, and November.

RECEIPTS FROM OTHER STATES

The receipts of cattle into this district from other states have been very small. The movement has averaged only 4,689 head annually since 1923. The largest number originated in Wisconsin which represents the shipment of high grade dairy cattle into Southern Texas. Much interest has

been aroused in the development of the dairy industry in this section during the last few years, especially around Kingsville and Falfurrias. The sharp increase in the receipts from Louisiana during 1927 was caused by the Mississippi River flood.

NET MOVEMENT OF CATTLE FROM SOUTHERN TEXAS

The importance of the Southern district as a surplus producer of cattle is shown by the net outflow from the territory. The annual movements since 1923 are summarized in Table 45.

TABLE 45						
NET MOVEMENT OF CATTLE FROM THE SOUTHERN DISTRICT OF TEXAS 1923 TO 1927						
	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927	
Total Movement of Cattle from the District...	283,548	343,159	320,820	419,797	367,215	346,908
Total Movement of Cattle to the District...	91,698	115,487	66,100	68,985	85,948	85,644
Net Outflow...	191,850	227,672	254,720	350,812	281,267	261,264

The foregoing table shows that the trend of the net outflow has been rising during the five-year period. This increase is a result of larger shipments from the district and smaller receipts. The net movement, less the number slaughtered and the death losses, represents the annual calf crop and the decrease in the number of cattle from year to year. Therefore, the net outflow is compared with total number of cattle on farms and ranches during the corresponding period in order to determine the surplus producing capacity of this area. Table 46 shows this comparison for the last five years.

TABLE 46

COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE SOUTHERN DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Southern District at End of the Year*	Net Outflow of Cattle from the Southern District	Per Cent of the Total Number
1923	1,245,000	191,850	15.4
1924	1,130,000	227,672	20.1
1925	1,180,000	254,720	21.6
1926	1,100,000	350,812	31.9
1927	1,065,000	281,267	26.4
5-Yr. Ave. 1923-1927	1,144,000	261,264	22.8

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

District VII—Southeastern Texas GENERAL TYPE AND CHARACTER OF AGRICULTURE

District VII, which is located in the southeastern corner of Texas, produces several important agricultural commodities. The three largest crops are cotton, corn, and rice. The last agricultural Census shows that 614,580 acres or almost 4 per cent of the State cotton acreage in 1924 was produced in this district.¹¹ During the same year, 268,936 acres or approximately 7 per cent of the State corn acreage was harvested in the Southeastern district. All of the 174,000 acres of rice produced in Texas in 1927 were grown in District VII.

This section also is an important cattle producing area; approximately 10 per cent of the total number of cattle in the State are located in these counties. This section is devoted almost entirely to breeding and grazing inasmuch as the grasses of this coastal region have a high carrying capacity and are good for maintaining the breeding herds.

Practically no supplementary feeding is done in this district except on a limited scale by local butchers and by a few feeders around several of the cotton oil mills.

¹¹United States Census of Agriculture, 1925.

Even though farming operations have been expanding in Southeastern Texas, cattle production continues to supply a large part of the agricultural income. Several factors, however, have retarded the development of the industry in this territory. One of the great obstacles has been the presence of the fever ticks which have been difficult to eradicate. The large size of many of the ranches and the difficulty of gathering up all the animals on dipping dates have impeded the progress of eradication work. The portion of the district now under tick quarantine is shown on the map in Figure 12.

Prior to May 1, 1928, when the Crisp Bill became effective, cattle could be shipped to out-of-state markets for immediate slaughter. Beginning with that date, however, cattle from the quarantine areas cannot be shipped out of the State unless shippers have complied with the regulations of the Livestock Sanitary Commission and the Bureau of Animal Industry. Ordinarily several dippings are necessary and the shippers contend that these treatments cause the cattle to heat badly, which condition makes it dangerous to ship the animals long distances immediately. This new regulation makes Fort Worth and the other Texas markets the only outlets for the producers of ticky cattle, since shippers are permitted to ship to these Texas markets for immediate slaughter on one dipping within 72 hours after dipping. This ruling should cause producers to follow more intensive eradication methods in order to remove this barrier to out-of-state markets.

The presence of these fever-carrying ticks also has had an effect upon the progress of improving the quality of cattle because of the danger of bringing in high grade cattle from tick-free areas. Since this is an important breeding section, it is one of the chief sources for stocker cattle. The quality of these stockers naturally cannot be improved with inferior grades of cattle in the breeding herds. Even with this handicap, however, some improvement has been made. The practice of crossing native cows with Brahmans has given satisfactory results but the supply

of high grade Brahman bulls has not been adequate to meet the demand.

Nevertheless, with the ultimate eradication of the ticks and with the probable development of more nutritive grasses, this district may develop into one of the most important stocker and feeder cattle producing sections in Texas. The winters usually are short and mild which necessitates very little shelter and supplementary feeding and which facilitates an early movement of calves to market.

TABLE 47

NUMBER OF CATTLE SHIPPED FROM THE SOUTHEASTERN DISTRICT OF TEXAS

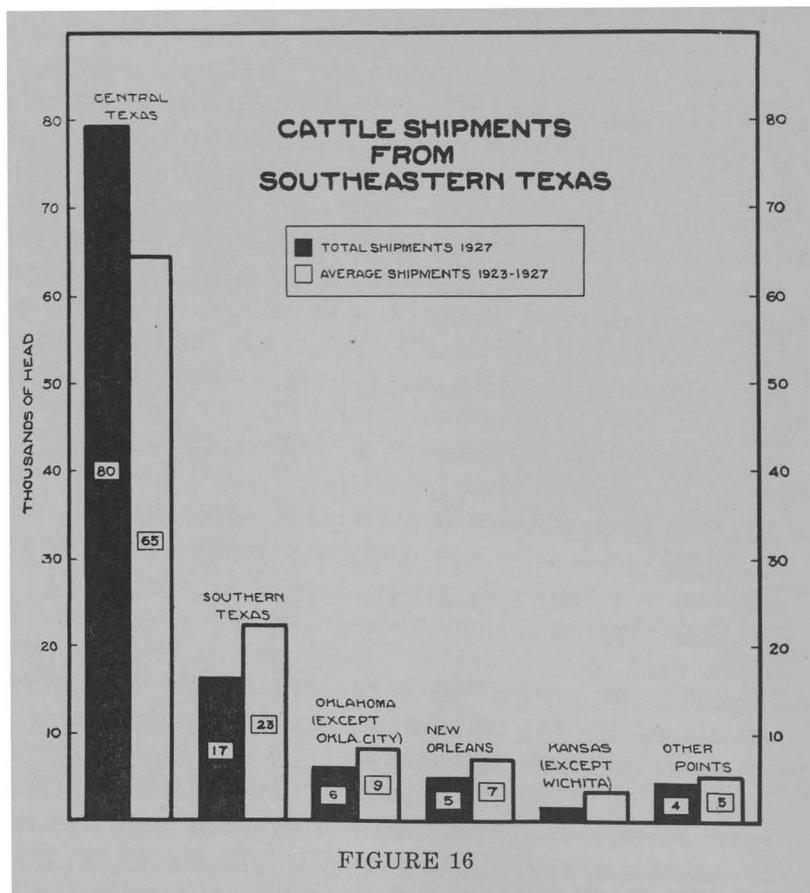
1923 TO 1927

Destination	1923	1924	1925	1926	1927	5-Yr. Ave. 1923-1927
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern					2,080	416
II. West Central	284	90	3,587	766	50	955
III. Central	46,598	49,902	90,160	57,356	79,500	64,703
IV. Eastern	105	26	348	388	1,072	388
V. Western	111	166	2,919			639
VI. Southern	29,250	28,671	14,257	24,483	16,599	22,652
VII. Southeastern*	32,578	41,114	62,989	62,155	71,964	54,160
Total Intrastate	76,348	78,855	111,271	82,993	99,301	89,753
INTERSTATE SHIPMENTS:						
By States and Markets:						
Arkansas					565	113
California:						
Los Angeles			440		25	93
Other Points			379			76
Illinois:						
Chicago			132	19		30
East St. Louis	346	25	216	22	59	134
Other Points			466	33		100
Kansas:						
Wichita	340		68			81
Other Points	9,612	25	3,401	3,646	1,889	3,715
Louisiana:						
New Orleans	8,042	8,474	10,309	4,872	5,172	7,374
Other Points	281	316	391	891	26	381
Missouri:						
Kansas City	3,054	1,001	1,662	606	543	1,373
South St. Joseph	172		163			67
Other Points			790			158
Oklahoma:						
Oklahoma City		37	1,388			275
Other Points	14,040	2,367	8,353	11,524	6,241	8,505
Other States		27	163	70	23	56
Total Interstate	35,887	12,272	28,271	21,683	14,543	22,531
Total Interstate	35,887	12,272	28,271	21,683	14,543	22,531
Total Intrastate	76,348	78,855	111,271	82,993	99,301	89,753
Total Movement from the South-eastern District	112,235	91,127	139,542	104,676	113,844	112,284

*The shipments within the Southeastern District are not included in the total intrastate movement from the district.

CATTLE SHIPMENTS FROM SOUTHEASTERN TEXAS

The destinations of all cattle shipped from District VII since 1923 are classified according to states and markets in Table 47. Approximately 80 per cent of this five-year movement went to other districts in Texas, while the remaining 20 per cent were sent to other states. A comparison of the shipments during 1927 with the annual average movement since 1923 to the principal outlets is shown in Figure 16.



MOVEMENT TO OTHER TEXAS DISTRICTS

The movement of cattle to other districts from this area has averaged 89,753 head annually since 1923. Over 72 per cent of these cattle went to District III; practically all of them were shipped to the Fort Worth market, which is in this district. Furthermore, the trend of the movement has been upward. The shipments during 1927 were exceeded only by those during the drought year of 1925.

The records show that 56 per cent of the 1927 movement were calves and that the heavy shipping season extended from April to December with a peak during August. The shipment of cows made up 30 per cent of the total number and were scattered over the entire year with heaviest loadings during October. Steer shipments comprised 13 per cent of the 1927 movement. October was the biggest shipping month also for steers, followed by the months of March, April, and June.

The other heavy movement from District VII was to Southern Texas. The annual average since 1923 was 22,652 head, but the trend of these shipments has been downward during the period. Approximately 69 per cent of the cattle shipped during 1927 were steers, most of which were loaded during the last six months, with the peak in September. Cow shipments made up 27 per cent of the total number and were transferred during both the spring and fall months. The remaining shipments consisted of calves and heifers and they were made all during the year.

MOVEMENT TO OTHER STATES

The only two markets outside of the State that have been receiving many cattle from the Southeastern district are New Orleans and Kansas City. The grazing areas in Oklahoma and Kansas also have been important outlets for cattle from this section.

Over 97 per cent of the shipments to New Orleans during 1927 were calves. They were sent to this market all during

the year, but the heaviest shipping season was during June, July, and August.

The trend of the movement to Kansas City has been declining sharply since 1923. Only 543 head were reported for 1927. This number represents the shipments of steers during February and March.

The transfer of cattle to Oklahoma and Kansas, likewise, has been decreasing during this period, principally because of the restrictions against the shipment of ticky cattle to other states. The movement to both of the states during 1927 consisted of steers which were shipped during April and May.

TABLE 48						
NUMBER OF CATTLE SHIPPED TO THE SOUTHEASTERN DISTRICT OF TEXAS						
1923 TO 1927						
Origin	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927	
INTRASTATE SHIPMENTS:						
By Districts:						
I. Northwestern		354	131	26	213	145
II. West Central	953	1,692	711	972	533	972
III. Central	12,065	11,523	15,774	4,644	4,444	9,690
IV. Eastern	17,654	14,787	17,846	26,509	24,933	20,346
V. Western	1,092	464	540	67	23	437
VI. Southern	15,922	23,285	17,022	22,046	17,586	19,172
VII. Southeastern*	32,578	41,114	62,989	62,155	71,964	54,160
Total Intrastate.....	47,686	52,105	52,024	54,264	47,732	50,762
INTERSTATE SHIPMENTS:						
By States and Markets:						
Alabama					846	169
Florida		5,147			834	1,196
Louisiana:						
New Orleans		258				52
Other Points	543	14		184	21,389	4,426
New Mexico			668	63		146
Other States	77	18	108	962	175	268
Total Interstate	620	5,437	776	1,209	23,244	6,257
Total Interstate	620	5,437	776	1,209	23,244	6,257
Total Intrastate	47,686	52,105	52,024	54,264	47,732	50,762
Total Movement to the South- eastern District	48,306	57,542	52,800	55,473	70,976	57,019

*The shipments within the Southeastern District are not included in the total intrastate movement to the district.

CATTLE SHIPMENTS TO SOUTHEASTERN TEXAS

The annual flow of cattle into District VII since 1923 has averaged 57,019 head. Approximately 89 per cent of these cattle originated in the other six livestock districts, while

11 per cent came in from other states. The entire movement since 1923 is summarized in Table 48.

RECEIPTS FROM OTHER TEXAS DISTRICTS

The majority of the intrastate receipts came from the Eastern, Southern, and Central districts. These three districts have quarantine areas which permit the transfer of cattle to the infested areas of District VII without the need of a series of dippings.

The movement from District IV has been increasing during the last three years. The shipments during 1927 consisted of 71 per cent cows, 14 per cent calves, 13 per cent steers, and 2 per cent heifers. There was both a definite spring and fall movement of cows with peaks in March and October. The calves were shipped during the entire year. Most of them were consigned to local packers and butchers in Houston, Galveston, Port Arthur, and Beaumont. The steers were shipped principally during the spring and fall months. The steers and cows represent the movement of stocker cattle to grazing areas in the Southeastern district.

The annual receipts from the Southern district have averaged 19,172 head during this period. Calves comprised 47 per cent of the cattle shipped during 1927, most of them being loaded during the first four months and in November and December. Approximately 31 per cent of the movement was steers and they were transferred during April, June, July, November, and December. The other 22 per cent of the total shipments were cows and they were shipped all through the year except during the summer months.

RECEIPTS FROM OTHER STATES

The receipts of cattle into the Southeastern district from other states have been small and irregular. The only significant movement was the heavy inflow from Louisiana during 1927. The abnormally large number represents the shipments of cattle from the lowlands of Louisiana during and following the Mississippi River flood of 1927. Approximately 80 per cent of these cattle were cows, 15 per cent calves and heifers, and 5 per cent steers.

NET MOVEMENT OF CATTLE FROM SOUTH- EASTERN TEXAS

The difference between the number of cattle shipped from the district and the number brought in for each of the five years since 1923 is presented in Table 49.

TABLE 49

NET MOVEMENT OF CATTLE FROM THE SOUTHEASTERN DISTRICT OF
TEXAS
1923 TO 1927

	1923	1924	1925	1926	5-Yr. Ave. 1927 1923-1927
Total Movement of Cattle from the District...	112,235	91,127	139,542	104,676	113,844
Total Movement of Cattle to the District...	48,306	57,542	52,800	55,473	70,976
Net Outflow...	63,929	33,585	86,742	49,203	42,868

The annual net outflow may represent the disposition of the equivalent of the calf crop and it may include also a disappearance in the numbers of cattle from farms and ranches. Therefore, the relation between the net outflow, exclusive of death losses and slaughterings, and the cattle population of the Southeastern district since 1923 is shown in Table 50. The heaviest liquidation occurred in 1925,

TABLE 50

COMPARISON OF THE TOTAL NUMBER WITH THE NET OUTFLOW OF
CATTLE FROM THE SOUTHEASTERN DISTRICT OF TEXAS
1923 TO 1927

Year	Number of Cattle in the Southeastern District at End of the Year*	Net Outflow of Cattle from the Southeastern District	Per Cent of the Total Number
1923	590,000	63,929	10.8
1924	565,000	33,585	5.9
1925	531,000	86,742	16.3
1926	467,000	49,203	10.5
1927	449,000	42,868	9.5
5-Yr. Ave. 1923-1927	520,400	55,265	10.6

*Estimates based upon the county distribution of all cattle as reported by the County Assessors to the Comptroller of Public Accounts of Texas.

resulting from the dry range conditions. Another peculiarity in the movement of cattle from this district is the relatively small percentage of the total number of cattle marketed annually. This low percentage indicates a proportionately smaller calf crop in this district than in the others.

Section IV

METHODS OF MARKETING TEXAS CATTLE

The preceding analysis of cattle shipments to and from Texas measures the importance of the different sources and outlets, but it does not show the methods used in marketing. In order to supplement this analysis, questionnaires were sent to a large number of producers throughout the State asking them for the methods by which they sold their cattle and calves during 1927. A summary of the reports is shown in Table 51. These producers reported the methods of selling 329,784 head of cattle, 106,480 of which were calves. A wide variation was found in the selling practices both between the different sections of the State and between the different classes of livestock. Therefore, the information is presented for each of the seven livestock districts and by classes in order to bring out the chief differences in the methods of marketing cattle in Texas.

District I—Northwestern Texas

METHODS OF SELLING CATTLE

District I is primarily a breeding and grazing section and the producers do considerable trading among themselves and of selling to local buyers or to non-resident buyers who travel through that territory and buy direct from the ranchmen.

The reports from this district show that over one-half of the steers and cows and over three-fourths of the calves sold during 1927 were disposed of locally. Approximately 62 per cent of the steers and cows and 96 per cent of the calves sold locally were purchased by local buyers. Only a small number are sold to butchers or as farm-slaughtered meat in this territory.

The practice among producers of shipping direct to market on their own account also was used considerably in this

TABLE 51
METHODS OF MARKETING CATTLE AND CALVES BY TEXAS PRODUCERS DURING 1927
Expressed in Percentages

Districts		Sold Locally								Shipped Direct to Market				Shipped to Other Sections for Further Grazing		Sold to Stocker and Feeder Buyers								Sold by Other Methods	
		To Local Buyers		To Non-Resident Buyers		To Local Butchers		As Farm Slaughtered Meat		On Own Account		Through Coöperative Shipping Associations				Direct		Through Mail Orders		Through Order Buyers					
Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves	Cattle	Calves				
I.	Northwestern	34.73	71.87	21.43	6.20	.59	.01	-----	.03	21.95	15.37	.56	-----	8.61	-----	9.29	2.35	.98	1.86	1.86	2.26	-----	-----		
II.	West Central	12.07	25.90	18.48	21.19	.01	.17	-----	-----	14.86	33.07	-----	-----	33.04	1.04	14.90	9.22	5.30	8.52	1.25	.89	-----	.07	-----	
III.	Central	26.58	56.02	13.26	14.25	.57	.15	.05	-----	38.41	22.24	1.65	-----	6.33	-----	11.28	7.33	-----	-----	1.87	-----	-----	-----	-----	
IV.	Eastern	10.33	14.12	53.97	-----	4.93	-----	2.39	-----	19.57	85.88	-----	-----	8.81	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
V.	Western	40.08	35.09	23.41	23.82	1.95	1.80	-----	-----	16.68	7.03	-----	-----	2.42	.73	6.57	23.52	.59	-----	3.30	8.01	-----	-----	-----	
VI.	Southern	33.80	11.89	7.62	2.62	.76	1.70	.01	.08	57.88	83.72	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
VII.	Southeastern	17.64	14.06	24.69	4.52	1.37	23.01	1.50	-----	20.24	46.63	-----	-----	34.56	6.78	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	STATE	25.03	32.72	23.98	10.37	1.45	4.62	.56	.02	27.08	41.99	.32	-----	13.40	1.22	6.01	6.06	.98	1.48	1.17	1.59	-----	-----	-----	

section in 1927. Approximately 22 per cent of the steers and cows and 15 per cent of the calves were sold by this method. Most of the old cows and "culls" are shipped direct to market from District I. The principal markets were Kansas City, Wichita, Fort Worth, and Oklahoma City. A few cars of cattle were reported to have been shipped through coöperative shipping associations, but that method has not been developed in this area except possibly in a few cases and only then on a very small scale.

Nearly 9 per cent of the steers and cows were shipped to other sections for further fattening before they were sold. This movement indicates that some producers make feeding or grazing arrangements in Oklahoma and Kansas particularly, but retain the ownership of the cattle until they are ready for market. The percentage, however, does not represent the total movement of cattle from this district to other grazing and feeding sections, because most of the cattle sold locally also go to other grazing and feeding areas for further fattening.

Producers in District I sold a large number of cattle to Northern feeders. The most common method was selling direct; slightly over 9 per cent of the steers and cows and over 2 per cent of the calves were handled in this manner. Only two instances of selling by mail orders were reported. The practice of selling to Northern feeders through order buyers was not used very much during 1927 by the producers in this district.

Approximately one-half of the reported sales made were for future delivery. The contracts were made all during the year, but most of the deliveries were made during the spring or fall months.

MARKETING DIFFICULTIES

Some of the producers in this section indicated in their reports the difficulties which they encountered in marketing their cattle during 1927. The most common complaints were those on transportation. Some referred to slow service both to the Kansas City and Fort Worth markets

causing heavier shrinkage and delays on the way to these markets; others thought the freight rates were too high; while still others accused the railroads of rough handling. Several of the reporters felt that the commission charge, feed, and other marketing costs were too high, while others experienced no serious trouble in marketing their cattle during 1927. The last expression probably represents the attitude of most producers in this district, especially since the return of more favorable cattle prices.

District II—West Central Texas

METHODS OF SELLING CATTLE

The methods of marketing cattle in District II differed from those in District I in several respects. In the first place, a smaller percentage of the total was sold locally; only 30 per cent of the steers and cows and 47 per cent of the calves were sold within this area. Approximately 12 per cent of the grown cattle and 26 per cent of the calves were sold to local buyers, while the rest of the local sales were to non-residents buyers. Only small numbers were sold to local butchers or as farm-slaughtered meat in the West Central district.

Most of the decreases in local sales were offset by increases in direct-to-market shipments of which practically all were made by individual producers and shippers. The reports show that 15 per cent of the mature cattle and 33 per cent of the calves were marketed in this manner. The principal markets were Fort Worth, Kansas City, Wichita, and Oklahoma City.

The practice of shipping cattle to other sections for further fattening was very common among the producers in this territory. Approximately one-third of the total movement was classified under this method. They were mostly steers and cows; only a small number of calves were reported.

The producers of West Central Texas sell a considerable number of cattle also to Northern feeders. Selling direct

to feeders was the most common method reported and accounted for 15 per cent of the total sales of steers and cows and 9 per cent of calves. The rather unique plan of selling cattle by correspondence was used successfully by several producers in District II. Some of the Northern feeders purchased their cattle through order buyers who travel over the range country and know where the desired type and quality of animals can be secured. This method is used more widely in the West Central district than the figures indicate, which is accounted for by the fact that most of these buyers are located around the larger cities, like San Angelo and Midland, and many of the reporters classed them as local buyers even though they were filling orders for Northern feeders. Over a third of the cattle sold by these reporters during 1927 was on future delivery. Most of the contracts were made in the spring and summer for fall delivery.

MARKETING DIFFICULTIES

The producers in this district registered more complaints than those from any other section of the State. The most frequently mentioned grievance was against the transportation facilities. A considerable area below San Angelo is not traversed by any railroad. Several producers reported distances from 60 to 80 miles to the nearest loading station. These long drives from the ranges to a railroad shipping point cause a shrinkage in weight which usually is not overcome prior to the sale of the cattle. Several reports suggested the designation of public livestock trails closed to other traffic and provided with small pastures or "traps" along the route for feed, water, and rest. Some of the shippers complained of the slow service because of the frequent stops on the way to market. Some contended also that the freight rates were too high. A few stated that, since no Sunday trains were operated on some of the branch lines, they were unable to get on a Monday market at Fort Worth. Others expressed a need for coöperative shipping associations which would enable the small producers to pool their

cattle and ship to market instead of selling locally. The common charge that commission rates and other marketing costs were too high was mentioned frequently, while, on the other hand, many registered no complaints.

District III—Central Texas

METHODS OF SELLING CATTLE

The most widely used methods of selling cattle in District III were those of selling locally and of shipping direct to market on the shippers' own account. These practices were the most common because of the nearness to the Fort Worth market. Locay buyers pick up the few head from small producers in the different localities and ship them to market on their own account. Most of the larger operators also ship direct to market.

The schedules show that 27 per cent of the cattle and 56 per cent of the calves sold in this section were to local buyers, while 13 per cent of the steers and cows and 14 per cent of the calves were purchased locally by non-resident buyers. The shipments direct to market by the producers accounted for 38 per cent of the grown cattle and 22 per cent of the calves marketed in the Central district during 1927. The principal markets were Fort Worth, Kansas City, and East St. Louis. A small number were shipped direct to market through coöperative shipping associations. Approximately 6 per cent of the cows and steers were shipped by the producers to other sections for further fattening.

Cattlemen in a few of the counties in the western part of the district supply Northern feeders with cattle. The results in Table 51 show that 11 per cent of the steers and cows and 7 per cent of the calves were purchased by those feeders direct from the producers. Only a small number of orders were filled through order-buyers in this district except at the Fort Worth stockyards.

MARKETING DIFFICULTIES

Fort Worth is sufficiently close to a large part of this section that the trucking of cattle to market in small numbers is easily accomplished. At the same time, however, the most common complaint of small producers in District III is that they are forced to sell to local buyers because of their inability to ship a carload at one time. Many of them suggested the need of coöperative shipping associations to overcome this practice. Unlike the other districts, very few producers in the territory complained about the transportation facilities. Some felt that rates were rather high and a few stated that selling expenses were out of line.

District IV—Eastern Texas

METHODS OF SELLING CATTLE

Since beef production is conducted on a relatively small scale in District IV, the bulk of the cattle sold represents the sale of by-products of the dairy industry. This includes the disposition of old cows not needed for milking purposes and of calves and steers. The quality of these cattle, as beef, therefore, does not equal that found in the beef cattle producing areas of the State. The natural outlet for this class of cattle is the Fort Worth market.

The two methods of marketing cattle most generally used by producers in this section during 1927 were selling locally and shipping direct to market on their own account. Practically 54 per cent of the local sales of cows and steers were made to non-resident buyers who travel around the several localities and purchase a few head from the many small producers. The buyers then assemble them at convenient shipping points and send them to market. Local buyers also compete for this business. They purchased 10 per cent of the cows and steers and 14 per cent of the calves from the producers in the Eastern district during 1927. These

buyers usually operate on a smaller scale than do the non-resident buyers, but they follow the same methods of purchasing and assembling the cattle at the nearest railroad station and then shipping direct to market or selling to local butchers. The reports show that practically 5 per cent of the sales were made to local butchers. A small portion of the cattle also were disposed of by the farmers as farm-slaughtered meat.

Shipping direct to market is the other important method of marketing cattle. Approximately 20 per cent of the mature cattle and 86 per cent of the calves were handled in this manner during 1927. The increased use of the motor truck has encouraged the direct marketing of cattle, especially from the northwestern portion of District IV because of the nearness to the Fort Worth market.

Some of the producers in the southern part of Eastern Texas ship their cattle to the Southeastern and Southern districts for further grazing; this movement amounted to approximately 9 per cent of the district total in 1927. No contracting for future delivery was reported for the Eastern district during 1927.

MARKETING DIFFICULTIES

Most of the producers in District IV operate on a small scale and are unable to ship a full carload to market at one time; hence, their only outlet is local buyers. In most communities, however, there is enough local bidding to keep the prices very close to the Fort Worth market level. Some sections of the district sell a sufficient volume of cattle periodically to maintain coöperative shipping associations. This form of organization enables producers to ship direct to market.

Their principal marketing obstacle, however, is the fever tick infestation. A large number of the counties in the Eastern district are under quarantine and producers are not permitted to ship cattle out unless they comply with the regulations of the Livestock Sanitary Commission. The area under quarantine is shown in Figure 12.

District V—Western Texas

METHODS OF SELLING CATTLE

District V includes the Highland section, where a large portion of the cattle are sold locally. Table 51 shows that, during 1927, 40 per cent of the cows and steers and 35 per cent of the calves were sold to local buyers and 28 per cent of the mature cattle and 24 per cent of the calves to non-resident buyers. A few sales were made to local butchers, but the aggregate number was relatively small.

The practice of shipping direct to market also was of considerable importance. Approximately 17 per cent of the steers and cows and 7 per cent of the calves were sent direct to one of the primary markets by the producers. The majority of these shipments were grass-fat cattle, old cows, and calves not contracted for by Northern feeder buyers. The principal markets were Fort Worth, Kansas City, Wichita, Los Angeles, and El Paso.

Very few producers ship to other sections for further fattening. They prefer to specialize in breeding high grade cattle for the local market and let feeders do the finishing.

Because of their high quality, stock produced in this district enjoy a strong feeder demand. The feeders used different methods of purchasing. Approximately 7 per cent of the cows and steers and 24 per cent of the calves are purchased direct by feeders. The mail order business is not used extensively in this section of the State. A considerable number, however, are purchased for feeders by order buyers, such as the National Livestock Producers Association and the Livestock Exchange, Inc. These and other forms of buying organizations are discussed more fully in the subsequent section of this report. Approximately 60 per cent of the sales reported by producers were for future delivery. Contracts were made principally during the spring for fall delivery, and also during early fall months for delivery during the following spring.

MARKETING DIFFICULTIES

The producers in this section, with their high quality cattle, experienced little trouble in marketing their stock during 1927. In the first place, the demand was brisk, especially for good cattle. Prices were high and trading was active; it was a sellers market. Because of the great distance to market centers, however, transportation was a large item of expense. Naturally, many of the cattlemen complained of the shipping charges to Northern markets, to feeding areas, and to California. They expressed a need for a stock rate with feed-in-transit privileges on cattle going to Iowa, Illinois, Indiana, Ohio, and other feeding areas similar to the stock rates on stocker cattle going to Oklahoma, Kansas and other grazing areas. Several of the reporters felt that the railroads made too many unnecessary stops on the way to market. The need for better feeding and watering facilities in the stock pens also was mentioned.

District VI—Southern Texas

METHODS OF SELLING CATTLE

Practically all of the cattle reported sold in the Southern district during 1927 were disposed of locally or shipped direct to market by the owners. Approximately 34 per cent of the cattle and 12 per cent of the calves were bought locally by local buyers, while 8 per cent of the cows and steers and 3 per cent of the calves were sold locally to non-resident buyers. Local butchers bought practically all their supply of cattle in their respective communities. Only a few head were reported sold as farm-slaughtered meat.

The producers show that approximately 58 per cent of the cows and steers and 84 per cent of the calves sold in the Southern district during 1927 were shipped direct to market by the owners. This large movement to market included the shipments destined to one of the Northern markets, but unloaded in Oklahoma or Kansas for further grazing. The

principal markets were Fort Worth, New Orleans, Kansas City, East St. Louis, San Antonio, and Houston. No direct sales to Northern feeders were reported by the producers in District VI. Only a small percentage of the sales made were for future delivery.

MARKETING DIFFICULTIES

The marketing difficulty most frequently mentioned by cattlemen in this district is the restriction which prohibits the movement of cattle from the tick-infested areas. The Livestock Sanitary Commission of Texas requires that animals be dipped within 72 hours of loading before being shipped from one quarantine area to another or to one of the recognized livestock market centers in Texas. Some contend that dipping in a solution of "22" just prior to loading causes the cattle to over-heat and shrink badly. Furthermore, cattle destined to other states from those infested areas must be dipped until they are free of ticks. Ordinarily this regulation necessitates two or more dipplings, thereby making long distance shipping almost impractical because of over-heating and frequent losses. Most producers in the quarantine areas, however, realize that the only solution to this problem is continued dipping until the ticks have been eradicated.

Some also complained about poor transportation service and high freight and commission charges. The small operators in this district, as in the others, realized the need for coöperative shipping associations which would enable them to ship direct to market.

District VII—Southeastern Texas

METHODS OF SELLING CATTLE

Most of the cattle in District VII are sold locally or shipped direct to market or to other sections for further fattening.

Local sales include 18 per cent of the cows and steers and 18 per cent of the calves to local buyers; 25 per cent of the cows and steers and 6 per cent of the calves to non-resident buyers; and approximately 3 per cent of the grown animals and 7 per cent of the calves to local butchers and as farm-slaughtered meat.

The movement direct to markets from this district comprised about 20 per cent of the cattle and 60 per cent of the calves sold during 1927. The majority of these cattle went to the Fort Worth market. A good demand also existed at Houston and Galveston. The Southeastern district also ships a considerable number of cattle to other sections for finishing because of the difficulty in fattening them on the type of grass grown in this area. During 1927, about 35 per cent of the cows and steers and 9 per cent of the calves were sent to other grazing sections. The practice of contracting for future delivery is not followed extensively in Southeastern Texas.

MARKETING DIFFICULTIES

A large area of the Southeastern district, like the Southern and Eastern districts, is infested with fever ticks and is under quarantine. The movement of cattle from this territory is permitted only after complying with the regulations of the Livestock Sanitary Commission and of the Bureau of Animal industry. It is practically impossible to ship cattle from these infested areas to other states because of the series of dippings required by the Bureau of Animal Industry.

Several of the producers who have only a few cattle to sell at a time report that local buyers are their only market outlets, and that some of those buyers have very little competition. Coöperative shipping associations again were suggested as the solution to the problem of securing full market prices by the producers. A considerable number of the operators experienced no trouble because they did their own slaughtering and disposed of the meat in nearby cities.

Section V

MARKET OUTLETS FOR TEXAS CATTLE

The operation of a cattle marketing cycle requires the performance of a series of distinct services. Producers raise the cattle, railroads transport them, feeders fatten them, commission agents sell them, financial agencies finance them, packers process and distribute them, and meat retailers sell the edible products to consumers.

Factors Determining Livestock and Meat Prices

Ordinarily producers consider the sale of their cattle complete when they sell them to some buyer, but the marketing process is not ended until the beef reaches the final buyers—the consumers. The desire and the ability of consumers to buy beef largely determine the prices. If the quality or price does not suit them, they will eat less beef or change to some beef substitute. The actual operation of this principle may be illustrated by the prices of beef and pork during 1927; with relatively high beef prices and correspondingly low pork prices, the per capita consumption of beef decreased while that of pork increased.

Furthermore, since consumers are the ultimate buyers of the products, their preference should be the rule and guide for producers. The consumptive demand should govern the quantity and quality of cattle produced because it is possible to control, at least partially, both of these factors, whereas demand is not subject to artificial regulation. It is important, therefore, that these various service-performing agencies work together in attempting to satisfy the wants of consumers by offering them beef that will meet both their desire and their ability to buy. The success of this procedure will depend upon the degree of coördinated support received from all the different agencies.

Services Performed by the Marketing Agencies

Retail meat markets are in a position to judge the desires of consumers from inquiries received from the buying public. Since beef is a perishable product, markets must carry the kind of meat people will buy. This condition enables meat shops to pass those consumer preferences on to the packers who supply the beef products.

Packers are interested in selling the kind of beef for which there is a demand, and they prefer to purchase the type and quality of cattle required to fill the retailers' order. Often there is a scarcity of the more desirable grades or a surplus of the less desirable class of cattle coming to the market centers. Unfortunately, little control has been exercised over either the number or the quality of cattle coming to market. The effective regulation of these two factors would go a long way toward solving the chief marketing problems of the cattle industry.

Commission agents are the connecting links between the producers and feeders and the packers. They are able to render a valuable service to their customers by encouraging them to produce the type and quality of cattle that will sell best. Feeder buyers and speculators also are in a position to help. The railroads have been doing a considerable amount of educational work by encouraging production of higher grade animals and better balanced agricultural programs.

The next and probably most important group in the livestock marketing system is the one consisting of producers and feeders. The importance of this group is based upon the fact that they produce and prepare the animals for slaughter; the type and quality of the finished product is dependent almost wholly upon the condition of the cattle prior to the time of their arrival at the market centers. Furthermore, producers are charged with a double responsibility: They must determine the type and quality of animals that will satisfy the desires of the beef-consuming public and they must adjust the total supply and the market

flow of cattle to the consumptive demand. Such an adjustment will prevent either a surplus or a scarcity of beef on the market; either condition will affect the prices of both livestock and meat products.

Selection of Market Outlets

In addition to producing the best type of cattle and of adjusting the supply to the demand, producers should select the most advantageous market outlet. The different channels through which Texas producers dispose of their cattle were enumerated in the preceding section of this study. The more important ones mentioned are:

1. Farm slaughtering.
2. Local sales to butchers.
3. Local sales to other buyers.
4. Direct shipments to primary markets.
5. Sales to stocker and feeder buyers.
 - a. Direct.
 - b. Through coöperative pools.
 - c. Through private organizations.

The importance of these outlets varies from year to year according to the conditions in the industry and according to competition among the different buyers. The United States Department of Agriculture estimates that approximately 30,000 head of cattle and 75,000 head of calves were slaughtered on Texas farms during 1927. While these figures are large in the aggregate, they represent only a small portion of the total number of cattle marketed in the State during that year. Furthermore, farm slaughtering is decreasing and its importance as an outlet for surplus cattle is relatively small. Local slaughtering continues to be an important outlet for Texas cattle. The estimates of the United States Department of Agriculture show that 80,000 grown cattle and 153,000 calves were slaughtered locally in the State during 1927.

These two outlets take approximately 2 per cent of the total net disappearance each year (excluding death losses).

The other 98 per cent either are sold to local buyers, shipped direct to one of the primary markets, or sold to stocker and feeder buyers. From the point of view of volume, sales to local buyers and shipments direct to markets are largest, and both of these outlets probably will continue to be the avenues through which the major portion of Texas cattle will flow to market. Nevertheless, supplying stocker and feeder buyers with grazing and feeding stock has been developing very rapidly during the last few years, and the possibilities for further expansion are very favorable.

In the first place, the relative shortage of cattle and the accompanying higher prices have increased the demand. An equally important factor, especially for Texas producers, is the improvement in the quality of the breeding herds. This development has placed Texas stocker and feeder cattle on a parity with those of any other producing area. Furthermore, Texas producers enjoy some natural and economic advantages. They have favorable climatic conditions which require very little supplementary feeding and shelter facilities.

Survey of the Stocker and Feeder Cattle Outlet

This business is highly competitive. Texas producers must compete with operators in the other stocker and feeder cattle-producing states. Therefore, in order to encourage the further expansion of this growing outlet, the Bureau of Business Research undertook to find out from the feeders the factors which influenced them in buying their feeder stock. Questionnaires were sent to over a thousand feeders in the Corn Belt and other cattle grazing and feeding states including Ohio, Illinois, Indiana, Michigan, Iowa, Missouri, Kansas, Kentucky, Oklahoma, Nebraska, Colorado, Wyoming, and California. A summary of the information secured is presented in Table 52. While a few of the questions asked for only qualitative information not subject to statistical measurements, it is possible to determine from the answers some of the factors which influence purchases of stocker and feeder cattle.

Results of the Survey

KIND OF CATTLE GRAZED OR FED

The primary aim of feeders is to secure cattle capable of being adapted quickly to the feed lots and possessing sufficient quality to make economical gains.

The majority of feeders expressed preference for Hereford cattle because they possess the desired feeding qualities. At the same time, however, those feeders handling either Shorthorn or Angus cattle were satisfied with these breeds. More emphasis seemed to have been placed upon the quality of the animals than upon the breed. A few feeders reported the purchase of low grade mixed steers and calves and, almost without exception, the results were not as satisfactory as were those obtained by feeders who bought high grade animals.

SECTIONS OF TEXAS FURNISHING STOCKER AND FEEDER CATTLE

The majority of these stocker and feeder buyers secured their cattle in the Northwestern, West Central, Western, Central, and Southern districts of Texas. The sections most frequently mentioned were the Highland section and the areas around Midland in District V; the Panhandle territory in District I; the territory around Stamford, Llano and San Angelo in District II; the Fort Worth market and the areas west and southwest of Fort Worth in District III; and the sections around Uvalde and Kingsville in District VI.

It is evident that buyers have to cover a large area to locate desirable animals because the best herds are widely scattered over the State. Furthermore, it is important to continue improving the quality of breeding herds in order to compete with other cattle producing states. The sections from which each of the reporting states secured cattle in Texas are shown in Table 52.

TABLE 52

METHODS AND PRACTICES FOLLOWED BY BUYERS OF TEXAS CATTLE

States	Percentage of Reporters' Purchases Coming from Texas		Sections of Texas from Which the Cattle Were Secured	States from Which the Rest of the Stock Was Secured	Factors Determining the Purchase of Stocker and Feeder Cattle	Per Cent of Stocker and Feeder Cattle Purchased in Texas					Most Frequently Mentioned Months in Which Feeding Was Started	Average Number of Days in Feeding Period	Market to Which Feeders Generally Ship
						By Making Personal Trips to Texas	By Corresponding Direct with Producers	Through Commission Agencies					
	Private or "Old Line" Companies	Coöperative Companies						Other Buying Companies					
California	100	---	Highland Section.	Utah, Idaho.	Price, quality, and transportation.	100	---	---	---	---	November.	180	Los Angeles.
Colorado	30	25	West Texas.	Wyoming, New Mexico, Colorado, and Kansas.	Price and quality.	50	---	50	---	---	October and November.	147	Omaha, Kansas City, South St. Joseph, and Denver.
Illinois	53	89	Highland and Panhandle Sections and around Stamford, Midland, Kingsville, and Fort Worth.	Indiana, Illinois, Wyoming, Colorado, Montana, Nebraska, Minnesota, and Missouri.	Price, quality, and freight rate.	13	8	21	58	---	November, December, October, and September.	220	Chicago, East St. Louis, and Indianapolis.
Indiana	91	99	Highland and Panhandle Sections and around Stamford.	Missouri, Oklahoma, Nebraska, Kansas, and Illinois.	Price, quality, and freight charges.	5	14	15	66	---	October, December, January, and September.	228	Chicago, Indianapolis, and Buffalo.
Iowa	59	63	Highland and Panhandle Sections, West and South Texas.	Nebraska, Wyoming, Colorado, Iowa, and New Mexico.	Price and quality.	5	12	12	16	55	January, November, October, September, and July.	200	Chicago, Omaha, and Kansas City.
Kansas	82	76	Highland and Panhandle Sections, West, East, and Central Texas.	Kansas, Oklahoma, New Mexico, Colorado, Missouri, and Arkansas.	Price, quality, and condition.	73	9	18	---	---	October, November, August, September, July, and December.	125	Kansas City, Chicago, South St. Joseph, and Wichita.
Kentucky	75	90	West Texas.	Tennessee, Virginia, Kentucky, and Illinois.	Price and quality.	---	---	---	100	---	December and November.	183	Cincinnati.
Michigan	60	80	Highland, Panhandle, and Stamford Sections.	Illinois, Wisconsin, and Montana; also Canada.	Price, quality, and delivery.	---	7	32	61	---	October, September, August, and May.	173	Buffalo and Chicago.
Missouri	46	81	Northwest Texas, Jones County, and Fort Worth.	Colorado, Wyoming, Missouri, and Kansas.	Price, quality, and delivery.	10	34	33	23	---	November, December, October, February, March, September, April, June, July, and August.	188	East St. Louis, Chicago, Kansas City, and South St. Joseph.
Nebraska	55	26	Panhandle and West Texas.	Colorado, Wyoming, Kansas, Nebraska, and New Mexico.	Price, quality, locality, and quantity.	69	7	24	---	---	October, November, August, and June.	131	Omaha, Chicago, Kansas City, South St. Joseph.
Ohio	51	84	Highland and Panhandle Sections and around Stamford and Uvalde.	Ohio, Minnesota, Missouri, West Virginia, Montana, and Illinois.	Price, quality, and transportation.	9	6	22	63	---	November, December, October, September, and August.	181	Buffalo, Pittsburg, Cleveland, Cincinnati, and Chicago.
Oklahoma	82	98	West Texas, South Texas, Panhandle, and also the Fort Worth Market.	Oklahoma, New Mexico, Louisiana, and Arkansas.	Price, quality, and condition.	75	13	12	---	---	November, April, May, September, and October.	165	Kansas City, East St. Louis, and Oklahoma City.

COMPETING SOURCES OF STOCKER AND FEEDER CATTLE

Even though the stocker and feeder cattle from Texas compare favorably with those of other producing sections, Texas supplies only a small portion of the total number fed. This seems to be attributed to the facts that the available supply in the State is limited, that Texas cattlemen have not advertised the high qualities of their product sufficiently, that adequate methods of making contracts with distant feeders have not been adopted, and that transportation charges from sections located closer to the feeding areas are less. Texas cattle compete chiefly with cattle from Colorado, New Mexico, Wyoming, Montana, Idaho, Utah, Arizona, Nebraska, Kansas, Oklahoma, and the native cattle in the grazing and feeding areas.

FACTORS DETERMINING THE PURCHASE OF STOCKER AND FEEDER CATTLE

The chief factors which influence buyers in selecting their cattle are price, quality, and accessibility. It is difficult to determine which one is given the greatest consideration because the influence of each one varies considerably in the different sections. Price usually is dominant since purchasers desire to protect themselves as much as possible against price fluctuations during the grazing or feeding periods. This factor was mentioned by practically every reporter. They think in terms of the cost of the animals delivered at their pastures or feed lots. The item of transportation, therefore, is an important factor to buyers in distant states like Ohio or Indiana.

Quality was stressed by the correspondents very frequently as a factor influencing their purchases. They included under this factor cattle that are well bred, healthy, uniform in size, and capable of making rapid gains on Northern pastures and in feed lots.

Accessibility is another important factor that is associated with the agencies through which buyers secure their cattle. A large number of reporters said that they preferred to see the stock before purchasing.

METHODS OF BUYING STOCKER AND FEEDER CATTLE IN TEXAS

Stocker and feeder buyers have several methods by which they secure their cattle. A few of them make personal trips to Texas and do their own buying; some place their orders with livestock commission agencies; others buy by corresponding direct with the producers; and still others purchase their supply at auction sales. All of these methods are used by buyers in obtaining Texas cattle. The selection of the agency depends principally upon the number and kind of cattle wanted, the previous experience of the purchasers with the different agencies, and the geographical location.

MAKING PERSONAL TRIPS TO TEXAS

Many of the purchasers come to Texas each year and buy their stockers and feeders personally. This is probably the most satisfactory method because the buyer and seller reach a mutual understanding before the sale is consummated. Nevertheless it is rather expensive unless a large number is purchased, and only the larger operators regularly follow this procedure. This is illustrated by the figures in Table 52 which show that buyers in Oklahoma, Kansas and Nebraska are the principal users of this plan, and most of them purchase large numbers of stocker cattle for further grazing. Several of the reporters stated that they were able to buy direct from some producers with whom previous personal contacts had been made. Many of the feeders, however, handle only a few carloads of cattle a year and find it impractical to make trips to Texas to do their own buying.

BUYING THROUGH COMMISSION AGENCIES

Even if the feeders were able to make personal trips to the producing areas, many of them would prefer to buy through an agency capable of knowing the market value of cattle rather than to rely on their own bargaining ability. If a reliable agency is selected, the feeders have the assurance that the cattle will be purchased on the basis of existing market values. With this assurance, the commission charge comprises a relatively small part of the cost of the animals. Dependable and responsible commission agencies render a service commensurate with the charges made. There are several types of these organizations operating in Texas.

Private or "Old Line" Commission Companies.—Most of the private or "old line" commission companies operate almost exclusively at the primary market centers. The data in Table 52 show that a considerable portion of the stocker and feeder cattle still are purchased through these agencies. Ordinarily, they fill the customers' orders from the supplies that come to the market centers. Frequently the orders are left with the commission agents to be filled when the desired kind of cattle appear on the market. Most of the feeders reporting purchases through these agencies were well satisfied with the service, but quite a number of them complained about the difficulty of securing uniform cattle at the market centers. Even though the cattle appear to be uniform after they are assorted and re-shaped by the traders and speculators, frequently they do not finish out uniformly because of their mixed breeding. Some of the feeders also mentioned the greater danger of receiving cattle with stockyards fever or other diseases contracted at the public markets.

Coöperative Commission Companies.—The operations of the National Producers Coöperative Commission Company differ from those of most private companies in that this organization has formed a feeder cattle buying pool for the purpose of securing the type of stock desired by its members at a minimum cost. The National Livestock Producers Pool

has been sending one of its representatives to producing areas annually since 1926 where he purchases direct from the owners the kind of cattle that will fill the orders of feeders. The representative acts as agent for both the buyer and the seller and in such capacity he undertakes to set the most equitable price. Much responsibility, therefore, is placed upon the character and ability of the agent because he must obtain and retain the confidence of both parties.

This coöperative organization purchased over ten thousand head of cattle direct from Texas producers during 1927. These cattle were distributed to feeders in Ohio, Indiana, Illinois, Iowa, Missouri, Michigan, and Kentucky. The feeders were very well satisfied with this method of buying. Many of them fed only one or more carloads, yet they obtained the kind of cattle they wanted direct from the ranges at a nominal commission charge. They contend that they receive better selected and more uniform animals after their representative has seen the condition of the range and the breeding herds.

Most of these cattle were obtained in the Highland section of Western Texas and in the Panhandle section of Northwestern Texas. The producers have been satisfied with this method of selling because they know what their cattle will bring before leaving the range and because they have confidence in the integrity and selling ability of the commission agent.

BUYING THROUGH OTHER AGENCIES

Although most of the private commission companies operate order-buying departments, very few of them go direct to the ranges to fill their orders. There are only a few agencies specializing on this type of commission business. One of the private agencies frequently mentioned by some of the correspondents is the Livestock Exchange, Inc. This agency secures orders from feeders, principally in Iowa and Illinois, to be filled from cattle purchased direct from the ranges—a method very similar to that followed

by the National Livestock Producers Pool. Most of these cattle are purchased in the Panhandle, Midland, and Highland sections in the Northwestern and Western districts. The feeders who have secured their feeding stock through this organization were well pleased. They commented on the uniformity and good quality of the cattle. Furthermore, they indicated that the animals are fresh from the ranges; that the method is convenient and economical; and that such an agency possesses greater bargaining power than do most individuals.

Selling Direct by Mail Orders.—One of the most unique methods of selling feeder cattle is the use of direct correspondence between the producers and feeders. It has been used very successfully by several large operators; the most conspicuous is the S. M. S. Ranch. These people have worked out standard classifications which enable them to describe the type and quality of their cattle by mail. They have developed a reputation among the feeder buyers also for their high quality and well graded stock. This method of selling, however, is adaptable only to large operators who have a sufficient volume from which to select uniform loads and over which to distribute the selling expenses. There are probably only a few ranches remaining in Texas sufficiently large to adopt this type of selling.

Highland Hereford Breeders Association.—One of the first coöperative selling agencies organized by producers in Texas was the Highland Hereford Breeders Association. Cattle producers in the Trans-Pecos region organized this association in 1918 for the purpose of encouraging the production of higher quality cattle and of finding the best market for their products. The plan of this agency was to ship the cattle to strategic points in the corn belt states and dispose of them through auction sales to feeders. These auctions and the supplementary advertising carried on by the association not only provided an immediate market outlet, but also encouraged feeders and other buyers to come to Texas and secure a larger portion of their feeding stock. This increased demand has enabled many producers to sell

individually direct from the ranges instead of through auction sales. Nevertheless, the auction method of selling and the supplementary advertising conducted by this association have increased the demand for cattle from this Highland section.

DIFFICULTY OF SECURING CATTLE OF UNIFORM GRADE AND QUALITY

The majority of the correspondents encountered little or no difficulty in obtaining cattle of uniform grade and quality. Nevertheless, the data in Table 52 show that a few in some of the states had trouble in finding the kind they wanted. Most of this class of buyers secured their stock at the primary markets—another indication that feeders obtaining their cattle direct from the ranges have less difficulty in securing uniformity and the desired quality.

MOST DESIRABLE KIND OF FEEDER CATTLE

From the feeders' point of view, the most desirable kind of cattle are those which can be acclimated quickly, fattened properly and economically, and sold satisfactorily. Such cattle sometimes are difficult to find. In the first place, the producers and feeders are widely scattered and separated, and many of the feeders have made no direct contact with producers or with commission agencies who specialize in handling choice feeder cattle. Even after the cattle are located, not all of them possess the desired quality, uniformity, and capacity, all of which depend upon proper breeding and raising. Furthermore, when fattened, they should be the type of beef for which a consumer demand exists. Consciously or subconsciously, these things are in the minds of buyers when they purchase feeding stock.

Desirable Ages and Weights.—The most desirable ages and weights of feeder cattle depend upon the length of the feeding period. The short-time feeders want mature cattle capable of fattening quickly, while the long-time feeders

prefer either calves or yearlings. The steers ordinarily are placed on a full feed ration immediately, while the calves and yearlings usually are placed on grass and rough feeds during the fall and winter and afterwards finished on corn. The range of ages and weights for these three classes are shown in Table 53.

TABLE 53
THE MOST DESIRABLE AGES AND WEIGHTS OF FEEDER CATTLE
REPORTED

State	Steers		Yearlings	Calves
	Age Range Years	Weight Range Pounds	Weight Range Pounds	Weight Range Pounds
California	-----	900 to 1,100	-----	-----
Colorado	2 to 4	800 to 1,100	500 to 700	-----
Illinois	2 to 4	750 to 1,200	500 to 750	375 to 600
Indiana	2 to 4	-----	600 to 750	400 to 600
Iowa	2 to 4	800 to 1,100	400 to 700	400 to 500
Kansas	2 to 4	800 to 1,200	500 to 700	350 to 500
Kentucky	2 to 3	800 to 1,000	600 to 700	-----
Michigan	2 to 4	800 to 1,250	500 to 650	400 to 500
Missouri	2 to 3	800 to 1,000	500 to 600	350 to 500
Nebraska	2 to 3	900 to 1,100	600 to 700	375 to 500
Ohio	-----	-----	550 to 750	350 to 650
Oklahoma	2 to 4	500 to 1,100	-----	-----

The steers vary in ages from 2 to 4 years and in weights from 800 to 1,250 pounds. The most typical combination is two and three-year-old steers weighing from 800 to 1,000 pounds. The feeders contend that the younger steers make more rapid gains on less feed than the older steers because they have not reached their full growth and because there is less likelihood of their early growth being checked on account of drought or feed shortage. The states receiving the biggest proportion of steers from Texas were Kansas, Oklahoma, Nebraska, Missouri, Iowa, and Illinois. Most of the movements to Kansas and Oklahoma were stocker steers going to the Flint Hills and Osage grazing areas and later on to one of the primary markets.

Because they feed for longer periods, the majority of feeders in Iowa, Illinois, Indiana, Ohio, Nebraska, Missouri, and Michigan prefer calves and yearlings. They state that

the younger animals make cheaper gains and that the marketing date may be extended more readily on calves and yearlings than on grown cattle. The reported range of weights for yearlings varies between 400 and 750 pounds, but the most frequently mentioned weight ranged between 600 and 700 pounds. The calf weights ran from 350 to 650 pounds, the most typical being between 400 and 500 pounds.

Preference between Steers and Heifers.—Most of the feeders in every state reporting expressed a preference for male animals, especially when they expected to feed for an extended period. A few feeders in Ohio, Illinois, and Missouri noted very little difference between the feeding qualities of steer and heifer calves if marketed before they are eighteen months of age. The majority of those who were feeding heifer calves were doing so because of the spread in the prices of the two classes. Usually heifer calves are as much as five dollars per head cheaper than steer calves.

Preference between Horned and Dehorned Cattle.—Practically every buyer expressed preference for dehorned cattle. Many of them said that they would not feed horned cattle at all and some even were willing to pay a premium for dehorned animals. Feed lot cattle that have been dehorned do not bruise one another and they take up less space in the feed lots.

Even though there is this very definite preference for dehorned cattle, some producers fail to remove the horns. If this operation is performed before the calves get too old, their growth will not be checked. Furthermore, if the dehorning process is done carefully, the animal's head will have a smooth appearance at maturity; some feeders complained that frequently animals with one or a part of a horn are found in a shipment and that it is difficult to remove such parts without affecting the growth of the cattle.

BEGINNING DATE OF FEEDING PERIOD

The majority of feeders begin operations sometime between September and January. Reports show, however, that some feeding operations were started during every month of the year. The beginning date depends principally upon the kind of cattle being fed, upon the geographical location, and upon the individual feeder. The calf feeders want to receive their calves as early in the fall as possible so that they will become adjusted to the change of climate before cold weather begins. Usually they are placed on feed immediately in order that they will not lose their milk fat or have their growth checked.

During 1927 most of the Texas calves were sent to the feeders during October, November, and December. Since some feeders want to secure their calves earlier, those producers living in sections where climatic conditions permit earlier breeding would do well to cater to this early demand.

LENGTH OF FEEDING PERIOD

The length of the feeding period varies considerably between the different states and the different classes of cattle. The average number of days cattle are fed in each state is given in Table 52. The feeders in the states of Kansas, Nebraska, Colorado, and Oklahoma have short feeding periods. The primary reason for this is that most of the cattle sent to those states ordinarily are placed on grass for three to five months and then sent to market as grass fat cattle. Some are sold as feeders and are re-shipped to feed lots for furthering fattening. The average feeder in the states of Indiana, Illinois, and Iowa feeds cattle over two hundred days. The farmers in heavy corn-producing states find it more profitable to market their feed crops in the form of livestock rather than to sell them as feed. Therefore, practically all of the long-fed animals go to market grading either prime, choice, or good, the three highest grades of cattle. The Government grades of beef are prime, choice, good, medium, common, cutter, and low cutter.

These feeders can afford to fatten cattle in this manner because a good demand exists for a limited amount of well finished beef. The supply, however, must be governed by the limited demand if a profitable price is to be realized, because any excess must be sold on the same basis as beef of lower grade. It is estimated that of the steer beef which comprises approximately 47 per cent of the cattle slaughtered in the United States, about 0.5 per cent falls in the prime grade, 4 per cent in the choice grade, 22 per cent in the good grade, 53 per cent in the medium grade, 17 per cent in the common grade, and 3.5 per cent in the cutter and low cutter grades. The Chicago market, the center of the long-feeding area, receives the bulk of the better grades; approximately 53 per cent of the number killed at this market during 1927 were graded as prime, choice, or good.¹ It is evident, therefore, that too many feeders should not attempt to finish their cattle to grade prime or choice, because the surplus will depress the price level for all the grades. This practice often wipes out the profit margin for the feeders, whereas if some would cut down the length of their feeding period and go to market earlier both groups would profit. The problem of determining the probable number of each grade of cattle needed to supply the consumer demand is not for the individual feeder to solve; it is the task of an association of feeders sufficiently large and strong to control the number on feed and to recommend the approximate beginning and length of feeding periods.

MARKET OUTLETS FOR FEEDER CATTLE

Cattle, at the end of the feeding period, are finished products and are ready for immediate slaughter. The only outlet, therefore, is the slaughter pen. Ordinarily the packers buy these cattle at the primary markets. Very little direct buying of cattle is practiced by the packers because adequate supplies can be secured on the open markets.

¹United States Department of Agriculture.

The principal markets to which the feeders from the several states ship are shown in Table 52. No attempt was made to measure the volume going to the different markets by states. The markets, however, are ranked according to the number of times they were mentioned by reporters.

COMPARISON OF THE TYPE AND QUALITY OF CATTLE FROM TEXAS WITH THOSE FROM OTHER STATES

Feeders indicated that Texas cattle compare very favorably with those of other producing sections. Most of them stated that for feeding purposes Texas cattle were as good as or even better than those from any other place. It must be remembered, however, that these feeders get the better Texas cattle and that they represent but a small portion of the total produced in the State. Therefore, even though the cattle that have gone to feed lots in the past have been very satisfactory, Texas producers generally will do well to continue improving the quality of their breeding herds in order to retain this reputation and to secure additional business. Supplying feeder cattle is one of the most satisfactory phases of livestock production, because ordinarily there is a good demand for these animals and the marketing costs are kept at a minimum. Some of the typical comments, both favorable and unfavorable, are reproduced in Table 54.

TABLE 54
FEEDERS' COMMENTS ON THE RELATIVE QUALITY OF TEXAS CATTLE

STATES	FAVORABLE COMMENTS	UNFAVORABLE COMMENTS
California.....	"Quality more uniform."	"Type not so good."
Colorado.....	"The cows I bought this year were as good as can be bought anywhere." "Texas cattle usually best in the country." "Texas cattle preferred because of uniformity."	
Illinois.....	"We've gotten better quality and type cattle from Texas than any place else." "Quality and type of cattle we get from Texas has been of a superb quality, scarcely a poor steer in a hundred head." "I find them of better quality and more uniform." "I believe they have a preference over northern raised cattle." "The calves I received last year, best I ever had, a uniform and choice load and priced reasonably." "I prefer Texas cattle. They do gain."	"Little deficient in scale and bone." "Hard to learn to eat corn." "Your cattle are a little wild."
Indiana.....	"Texas cattle are better through-out." "I think Texas cattle are O. K.; they finish quick and look fine—they are good rustlers on grass." "I topped the market with my fifty-one head of Texas calves." "Some of the best feeding cattle I have ever seen came from Texas." "They are market toppers."	"Texas cattle are wilder." "Texas cattle are lacking in bone." "Not as large frame as northern cattle."
Iowa.....	"Texas cattle run more uniform." "Quality comparable to cattle from other states." "Are better quality and finish better." "Very favorably." "Just as good or better." "Texas and Colorado cattle are probably the best that come to this section."	"Lack some in scale and ability to handle large amounts of feed." "Should be in better flesh when shipped." "Some Texas cattle are pretty wild."
Kansas.....	"Have always fed Texas cattle." "Texas produces the best feeders that come to this part of Kansas." "Steers from Texas have always made a better gain on grass in my pastures than cattle from other states." "Texas cattle are generally a little higher price, but enough better to be worth the difference." "Cattle coming from Texas are hardy and quick maturing—and can be secured in uniform bunches."	

-TABLE 54 (Continued)

FEEDERS' COMMENTS ON THE RELATIVE QUALITY OF TEXAS CATTLE

STATES	FAVORABLE COMMENTS	UNFAVORABLE COMMENTS
Kentucky.....	"Texas cattle compare favorably with any other state."	"Texas cattle are a great deal wilder."
Michigan.....	"Texas cattle are very good—We like Herefords and Shorthorns crossed." "You have healthy cattle, good quality, and they do good in our locality." "Steers are a little higher than other states, but are worth the difference."	"Texas cattle do not have large enough bones." "Too much variation in carload."
Missouri.....	"I really like the cattle from Texas for their uniform size, breeding, and general feeding qualities." "Hereford and Shorthorn crossed seemed to be good feeders." "Your better livestock is as good as grows, but a low grade of Texas cattle is no good." "I believe that Texas feeders are the best investment." "Texas cattle seem to dress a better per cent for the butchers." "We buy nothing but Texas calves."	"Quality good, mostly too short, and not bone enough for body." "Your cattle are a little wild." "Texas cattle (not all of them) are awfully wild." "Had some cold-blooded wild cattle that were not desirable." "Texans don't look as well as northwest cattle when put in feed lot, but they do better."
Montana.....	"I have gotten as good cattle from Texas as elsewhere."	
Nebraska.....	"More uniform." "Do not handle anything but Texas cattle and have handled them since 1880." "Compare very favorably." "Have had some as good steers as I ever fed that came from Midland and Snyder territory." "About the same but worth \$1 per hundred more than when bought through the feed stockyards." "Prices being equal, we prefer the well-bred Texas Hereford cattle."	"Texas calves are excellent but older cattle frequently are stunted." "Usually a Colorado or Wyoming steer feeds better than a Texas steer, because they are usually more rugged and looser hided."
Ohio.....	"Quality from Texas is just a little better than from other states if bought direct from the ranches." "Texas cattle do well locally." "Are better." "We get better bred and more uniform calves from Texas than anywhere else." "We like the Texas calves best on account of their breeding and finish." "We have practically no shipping fever from Texas calves bought direct."	"Vary too much in age and quality and are wild." "Not enough for comparison yet." "Calves received in 1927 were not quite as good as those received in 1926." "Not quite as rugged as northern cattle."

TABLE 54 (Continued)

FEEDERS' COMMENTS ON THE RELATIVE QUALITY OF TEXAS CATTLE

STATES	FAVORABLE COMMENTS	UNFAVORABLE COMMENTS
Oklahoma.....	<p>"Better."</p> <p>"We prefer to handle the white-faced, dehorned, high-grade Hereford steers."</p> <p>"More white faces. They always sell better, and more of a demand for them."</p> <p>"I think Texas cattle are far superior."</p>	
West Virginia.	"I have gotten as good cattle from Texas as elsewhere."	

Section VI

THE COSTS OF MARKETING TEXAS CATTLE

Since the drastic decline in cattle prices during 1920 and 1921, the influence of the costs of marketing probably has been discussed more widely than has any other phase of the industry. This sudden drop in the price level created an inevitable and excessive shrinkage in the value of cattle. Producers and shippers were confronted with large losses during the subsequent period of forced liquidation. The natural reaction of producers, therefore, was to demand a reduction of marketing costs in order to reduce their losses and to make the charges commensurate with the lower level of cattle prices.

An immediate reduction of these marketing costs, however, was impossible. In the first place, some of the charges were based on the services rendered rather than on the value of the product, and the agencies performing those services were unable to lower their rates. In addition, it is difficult to vary charges with the current price level of a commodity. Furthermore, the producers were not sufficiently organized to bring about prompt and effective action. Nevertheless, livestock interests sought some form of immediate relief. Sufficient pressure was exerted by the several livestock organizations to effect several important changes in the marketing system. Among the more significant changes were: (1) The placing of livestock markets under the supervision of the Secretary of Agriculture for the purpose of regulating the trade practices of the different marketing agencies, (2) the increased stimulus given to the expansion of coöperative commission companies, primarily as a protest against the existing scale of commission rates, and (3) the frequent filing of briefs with the State and Interstate Commerce Commissions for the purpose of obtaining reductions in transportation charges.

GOVERNMENT SUPERVISION OF LIVESTOCK MARKETS

The Secretary of Agriculture was given regulatory supervision over activities at all public livestock markets by congressional action following complaints by various livestock interests that the charges assessed were unregulated and that many of them were unreasonable. The Department of Agriculture regulates the trade practices so as to assure free and fair competition. The administration also determines all fees and charges to be collected from the producers by the commission firms and the stockyards companies.

DEVELOPMENT OF COOPERATIVE COMMISSION COMPANIES

The commission charge has been one of the principal arguments for the organization of producer-owned selling agencies. The shippers have contended that the existing rates were out of proportion to the selling price and that by operating their own agency the profits would accrue to them. The privately-owned companies, on the other hand, have contended that their rates are just and reasonable and their arguments are predicated upon the statement that they are earning no more than a fair return on their investment. Nevertheless, the rate charged is based upon the service rendered by a selling organization. A real commission agency, whether private or coöperative, renders to livestock shippers a highly specialized service for which it is entitled to receive adequate compensation. This service embodies more than the buying and selling of livestock for the shippers. It should include, in addition, the furnishing of reliable information on market conditions to shippers regularly, the giving of assistance to producers and other livestock organizations in the attempt at regulating the market flow of livestock to the consumer demand for meat and meat products, and the forecasting of the available supply of and the probable future demand for each class of livestock.

Many of these services could be rendered best through a strongly organized livestock exchange composed of all the marketing agencies. Such an organization is in a better position to collect and disseminate reliable and useful information more economically, and would avoid unnecessary duplications. The exchange is able to advertise the individual market and to build up and retain the confidence of shippers. Furthermore, it is needed to regulate and maintain free and fair trading practices at the market centers.

The schedule of rates required for the individual companies to render the proper service depends upon three considerations: expert salesmanship, good management, and a sufficient volume of business over which the operating expenses can be distributed. The latter factor is the obstacle confronting the majority of the companies. An inadequate volume of business has resulted from the operation of too many commission companies at many of the markets. This trouble might be remedied, at least in part, by a series of consolidations of the smaller agencies. Less than one-half of the firms now operating on the Fort Worth stockyards probably could handle all the livestock consigned to this market. Then the smaller number of concerns, with the additional volume of business over which to distribute the operating expenses, would be able to charge a smaller commission rate and at the same time earn a fair return on their investment.

Some methods of affecting these consolidations and of regulating the future organization of other companies must be worked out before this difficulty can be solved, because no great increase in receipts can be expected during the next few years or as long as the relative shortage of cattle exists.

The coöperative livestock commission agencies were organized by a group of producers and shippers primarily as a protest against the existing schedule of commission rates. Although the first of the coöperative agencies now in operation was formed in 1917, none was organized at the Fort Worth market until 1922, the year following the severe

depression in cattle prices. The Cattle Raisers and Producers Commission Company was sponsored by the Texas and Southwestern Cattle Raisers Association, the Texas Sheep and Goat Raisers Association, and the Texas Farm Bureau Federation. This agency immediately began to charge rates which were approximately one-third less than those charged by the private companies. This schedule of rates, however, was not sufficient, with their volume of business, to cover the costs of operation. Therefore, the rates were restored to the level of the privately-owned companies in January, 1926. This agency has effected some savings to the shippers, but it has not been as successful as some of the affiliated coöperative firms at some of the other markets, because the producer-members have not shipped to it continuously.

The Executive Committee of the Texas and Southwestern Cattle Raisers Association is reorganizing this firm, and it is planned to make it the official marketing agency of the Association. The plans of this committee also include the reorganization of the coöperative agency at the Kansas City market. Both of these houses will become affiliated with the National Livestock Producers Association. With the pledge of the members of the Cattle Raisers Association that they will market their livestock through this firm only, it should be possible to secure a sufficient volume of business to enable the coöperative companies at these two markets to be as successful as the associated agencies at some of the other markets.

INFLUENCE OF TRANSPORTATION CHARGES

Since transportation charges originally comprise about twice as much as all other distribution costs combined, much attention has been given to the reduction of rates during the last five years. The producers have an organization known as the Livestock Traffic Association which is supported and maintained by an assessment on livestock shipments to the Fort Worth market and by the several livestock

associations in the State. This organization has been successful in securing many freight rate adjustments in the Southwestern territory. Among the more important changes are:

1. **RATES ON MIXED CARS ON CATTLE AND CALVES:** Secured suspension of a mixed carload rule which would have established the higher calf rate and cattle minimum weight on mixed cars of cattle and calves. This suspension effected an estimated saving of \$150,000 annually for the future and around \$400,000 on prior shipments.
2. **RATES ON STOCKER HOGS:** Secured a rate reduction on stocker hogs ranging from \$6.25 for a 20-mile haul to \$32.78 for a 500-mile haul per car.
3. **BEDDING CHARGES:** Cancellation of rule imposing charges of \$1 per single-deck and \$1.50 per double-deck car on all livestock moving between points in Texas. Estimated saving for Texas shippers around \$100,000 annually.
4. **CLEANING AND DISINFECTING CARS:** Cancellation of rule imposing charge of \$2.50 per single-deck and \$4 per double-deck car.
5. **MARKET PRIVILEGES:** Secured cancellation of rule imposing "beef" rates on "stock" cattle accorded privileges of Texas markets.
6. **RATES ON CALVES:** Secured rule whereby rates on cattle operate as maximum rates on calves, representing a reduction of over \$13 per car.
7. **ORIENT LIVESTOCK RATES:** Secured adjustment of rates from and to points on the Orient Lines in Texas. The reductions on cattle ranged from \$29.70 to \$39.60 to St. Louis; from \$37.40 to \$45.10 to Chicago; from \$2.20 to \$22 to Fort Worth, Oklahoma City, Wichita, and local points in Texas, Oklahoma, New Mexico, Kansas, Arkansas, and Louisiana. Estimated saving to shippers around \$500,000 annually.
8. **RATES ON CALVES:** Secured suspension and cancellation of proposed increases in rates on calves from points in the northern half of Texas to interstate destinations, which ranged from \$6.80 to \$19.50 per 36-foot car.
9. **MARKET PRIVILEGES:** Secured withdrawal of a proposed rule which would have prohibited the change in ownership of livestock accorded the privilege of the market.
10. **SOUTHWESTERN LIVESTOCK RATES:** Secured suspension and cancellation of a new tariff which would have upset the entire southwestern rate structure. The new rule would have resulted in increases from \$14 to \$19 per car to points in

Oklahoma on the Tulsa and Pawhuska branches of the Santa Fe Lines; from \$8 to \$41 per car to points in Oklahoma on the M-K-T Lines; from \$13 to \$32 per car to points in Oklahoma on the Rock Island and Frisco lines.

11. **GENERAL REDUCTION OF RATES IN THE SOUTHWEST:** Secured a general reduction in rates under 600 miles on all classes of livestock from, to, and between points in the State of Texas. The reduced rates ranged from $\frac{1}{2}$ cent to $5\frac{1}{2}$ cents under the old rates, or an average reduction of about 15 per cent.
12. **FURNISHING CARS FOR THE MOVEMENT OF LIVESTOCK:** Secured cancellation of the proposed rule which would permit carriers to furnish cars of length other than the size ordered by the shippers.
13. **RATES TO STATES EAST OF THE MISSISSIPPI RIVER:** Secured suspension of proposed increases in rates to Indiana, Ohio, Kentucky, Tennessee, and other states east of the Mississippi River four times during the last two years. The last attempt would have increased the rates from \$20 to \$30 per car. A petition is pending before the commission now which, if approved, will reduce the rates about \$50 per car. At present, there is no stock rate to these areas, even though the major movement consists of stocker-feeder cattle and lambs.
14. **STOCKER CATTLE RATES FROM TEXAS TO KANSAS:** Secured cancellation of the rule which restricted the movement of livestock via certain routes, some of which were longer and were the basis of the freight rates, whereas formerly such rates were based upon the shortest route.
15. **GENERAL INVESTIGATIONS:** The Interstate Commerce Commission has held a series of hearings in the states west of the Mississippi River for the purpose of determining whether or not livestock rates should be reduced. The Livestock Traffic Association has submitted briefs for the livestock interests which give a summary of livestock conditions in the southwestern territory and this agency expects a favorable decision.
16. **PROPOSED INCREASES IN RATES FROM AND TO POINTS IN NEW MEXICO:** Secured suspension of proposed increase of rates on livestock by the Southern Pacific from and to points on its lines in New Mexico and other interstate destinations, including the State of Texas.

In addition to formal hearings before the State and Interstate Commerce Commissions, the Traffic Association handles informal cases which appear on the various Railroad Rate Bureau dockets that contemplate changes in the

tariff. Furthermore, the association handles claims of alleged undercharges for the shippers which in 1927 amounted to \$6,700. This figure does not include matters adjusted almost daily, at the yards before freight charges were paid.

EFFECT OF HIGHER CATTLE PRICES ON MARKETING COSTS

Relief has come to the livestock shipper not only in the form of reduced freight rates and certain terminal market charges, but also through the return of cattle prices to pre-war levels. These higher prices have given the seller a larger part of the purchase price because the marketing costs have not advanced in proportion to cattle prices.

The improved position of the producer or shipper is shown by a study of cattle sales at ten large markets during the last four years made by the Bureau of Railway Economics.

TABLE 55
DISTRIBUTION OF THE CATTLE PURCHASER'S DOLLAR

Distribution	1924 Cents	1925 Cents	1926 Cents	1927 Cents
10 MARKETS*				
To Freight.....	5.8	5.0	4.7	3.9
To Other Distribution Costs.....	2.8	2.5	2.4	2.0
To the Producer or Shipper.....	91.4	92.5	92.9	94.1
Total.....	100.0	100.0	100.0	100.0
FORT WORTH MARKET				
To Freight.....	8.3	8.0	6.6	5.1
To Other Distribution Costs.....	3.8	3.7	2.9	2.4
To the Producer or Shipper.....	87.9	88.3	90.5	92.5
Total.....	100.0	100.0	100.0	100.0
KANSAS CITY MARKET				
To Freight.....	4.7	4.0	3.5	3.5
To Other Distribution Costs.....	2.4	2.0	2.0	1.8
To the Producer or Shipper.....	92.9	94.0	94.5	94.7
Total.....	100.0	100.0	100.0	100.0

*Chicago, Kansas City, East St. Louis, Omaha, Fort Worth, South St. Paul, Jersey City, Nashville, Lancaster, and Baltimore.

A summary of the distribution of the cattle purchaser's dollar at the ten markets and the individual markets at Fort Worth and Kansas City is presented in Table 55.

These figures are used to show the trend of the costs rather than the proportion allocated to the different items, because they do not represent all the accumulated costs. This explanation applies particularly to freight charges. Only the transportation charges on the last haul are included in these calculations, whereas the cattle may be involved in several rail movements from the range to the block. For example, many Texas cattle are fed in transit at corn belt feed lots on a transit arrangement whereby the Texas to Chicago rate is paid into the feed lot, and the shipment moves on to the Chicago market at 8½ cents, which represents only the transit charge.

The data in this table show that the proportion of the buyer's dollar absorbed by freight charges and other marketing costs at the ten markets decreased during this period, while that received by the seller increased. These shifts, however, have resulted primarily from a rise in cattle prices rather than from any material reduction in either transportation or terminal market charges.

COMPARISONS OF MARKETING COSTS BETWEEN MARKETS

The influence which marketing costs exert upon cattle movements is shown by a comparison of the charges incurred at the different markets handling Texas cattle. Six of the markets studied by the Bureau of Railway Economics received cattle from Texas. The average at these six markets for the four-year period previously mentioned is presented in Table 56.

Table 56 shows that the proportion of the purchase price of cattle and calves absorbed by freight charges and other distributing costs per hundred pounds has been smaller at Fort Worth than at any of the other six markets. At the same time, the net proceeds per hundred pounds also have been

TABLE 56
COMPARISON OF THE COSTS OF MARKETING TEXAS CATTLE AT SIX MARKETS

Calculations Cover 72 Sales Days Taken at Three-Week Intervals Ending October 6, 1924; October 19, 1925; November 1, 1926;
and November 14, 1927

Market Destination	Average Weight Per Head	Net Proceeds to Seller	Per Hundred Pounds				Per Cent of Price Paid by Purchaser		
	Pounds	Per Head	Price Paid by Purchaser	Freight Charge	Other Costs of Distribution	Net Proceeds to Seller	Freight Charge	Other Costs of Distribution	Net Proceeds to Seller
Fort Worth	541	\$24.83	\$5.11	\$.36	\$.16	\$4.59	7.0	3.2	89.8
Kansas City	665	35.79	6.06	.50	.18	5.38	8.2	3.0	88.8
East St. Louis	803	42.67	6.13	.53	.23	5.32	9.5	3.8	86.7
South Omaha	778	58.02	8.30	.63	.20	7.47	7.6	2.4	90.0
Chicago	951	72.62	8.54	.63	.23	7.63	7.9	2.7	89.4
Jersey City	303	21.93	8.77	1.22	.31	7.24	13.9	3.5	82.6

Source: Bulletin 29, Bureau of Railway Economics, Washington, D.C.

less than those at the other markets. This is attributed not to a lower price level at Fort Worth, but to the lower quality of cattle. The practice of shipping the better class to the Northern markets, grazing areas, and feed lots has been increasing during the last few years, because the demand for better finished cattle is greater in the North and East than it is in the Southwest.

Too much emphasis cannot be placed upon the continued improvement of the quality of cattle. Good quality animals bring higher prices which accrue to the sellers, since relatively it costs no more to transport or to sell a load of high quality cattle than it does a load of "scrubs." The figures in Table 56 show that Texas producers who shipped to Chicago realized more dollars per hundred pounds than those who went to any of the other markets, even though the freight charges and other marketing costs of shipping to Chicago were relatively high. This premium resulted from the shipment of only high quality and well finished cattle to Chicago from Texas.

INFLUENCE OF COSTS UPON THE SELECTION OF MARKETS

The primary markets are adequately organized and sufficiently competitive so that ordinarily, with the exception of the difference between transportation and other handling charges, there is very little spread between the quotations at the various markets. If a noticeable spread appears, operators are prompt to divert cattle from the cheaper market to the higher market, which will restore the balance very quickly. There is an exception to this self-regulating mechanism. The quality of cattle may be an influencing factor in determining the best market. Highly finished cattle, for instance, ordinarily will sell better in Chicago than in one of the western markets because the demand for the prime and choice grades of beef is greater in the areas served by this market than in those served by the markets farther west. Furthermore, the costs of reaching the ultimate outlets exert an influence upon the price which can be

paid for high quality and well finished animals. If the consuming outlet is New York City and the cost of sending beef from Chicago to New York is less than the cost from Omaha to New York, the difference is deductible from the cost of handling charges between the two markets. This accounts for the movement of the bulk of the highly finished grades to Chicago. On the other hand, the demand for some of the other grades of beef is sufficiently large in the area served by a market like Fort Worth and the cost of reaching this consuming area is enough less than the cost of serving it from Chicago that the difference in the prices paid for these grades of cattle likewise is not represented by the handling charges incurred in transferring the cattle from Fort Worth to Chicago; the spread in market quotations may be much less than these costs.

Nevertheless, individual producers find it advantageous to know the transportation and other marketing charges from their shipping point to the different terminal markets and grazing and feeding areas. Even though the difference may be nominal, producers frequently may avert apparent losses by keeping up with market fluctuations and with the approximately costs of reaching the stronger market outlets.

The costs of yardage, feed, commission, and other terminal market expenses do not vary much between the different markets nor do they comprise a very large part of the selling price. The calculations in Table 55 show that these costs varied from 2.8 per cent of the purchaser's dollar in 1924 to 2 per cent in 1927 at the ten markets; from 3.8 per cent to 2.4 per cent at Fort Worth; and from 2.4 per cent to 1.8 per cent at Kansas City.

On the other hand, a large number of cattle marketed must be transported long distances; in such instances freight charges constitute more than twice as much as all other distributing costs combined. The Bureau of Railway Economics Survey shows that, during this period, transportation charges varied from 5.8 per cent to 3.9 per cent of the price paid by the purchaser at the ten markets. The percentage decrease on the cattle sales at Fort Worth ranged

from 8.3 per cent in 1924 to 5.1 per cent in 1927 and from 4.7 per cent to 3.5 per cent at Kansas City. A still more significant comparison, from the point of view of Texas producers, is the proportion of marketing costs on Texas cattle shipped to each of the six markets shown in Table 56. The percentage of the purchase price allocated to freight charges on Texas cattle shipped to Fort Worth during these periods does not differ much from that on all Fort Worth receipts, because practically all these receipts were Texas cattle. Transportation charges on Texas cattle shipped to Kansas City, however, comprised more than twice as much of the purchase price as those on all the receipts at Kansas City during these four three-week periods. The larger proportion of the purchase price allocated to freight charges at Fort Worth as compared with the charges at the ten markets indicates one of two things: Either freight rates in the territory served by the Fort Worth market (principally Texas) are relatively higher than the rates for the territory served by the ten markets, or the quality of cattle sold at Fort Worth is lower than the average quality of cattle sold at the ten markets. Possibly a combination of both of these factors accounts for the difference.

Nevertheless, it is evident from these comparisons that transportation charges often determine the outlets for Texas cattle. They give other producing sections, with more favorable tariffs, a competitive advantage over Texas producers and, frequently, they determine whether Texas cattle are to be slaughtered in this or in some other state. Since Texas is a surplus beef producing state, either live cattle or beef must be transported. The proper adjustment of freight rates is a difficult undertaking, because they are so complicated and, besides, changes often necessitate a revision of the entire rate structure. These adjustments, however, will be worked out eventually by the traffic officers of the livestock producers' organizations, the railroad companies, and the State and Interstate Commerce Commissions.

In order to show the difference in the transportation charges from Texas to the different market outlets, the base rates from a group of shipping points to the most important destinations are quoted in Table 57. Both the stock and beef rates are given. The stock rate, approximately 75 per cent of the beef rate, applies to points in Texas, Oklahoma, New Mexico, Colorado, Kansas, Nebraska, Missouri, and Arkansas on cattle that will not be slaughtered within thirty days from the date of shipments. The lower rate is an influential factor in the movement of stocker and feeder cattle to points in these states. On the other hand, producers selling cattle to feeder buyers in Iowa, Illinois, Indiana, Ohio, California, and other distant states do not have the stock rate; they pay the beef rate just as though they were shipping fat cattle.

TABLE 57

COMPARISON OF FREIGHT RATES ON CATTLE FROM TEXAS SHIPPING POINTS TO OTHER STATES AND MARKETS EXPRESSED IN DOLLARS

Calculations Based upon a 36-Foot Car with Minimum Weight of 22,000 Pounds

	Fort Worth Texas		El Paso Texas		Houston Texas		San Antonio Texas		Albuquerque New Mexico		Enid Oklahoma		Oklahoma City Oklahoma		New Orleans Louisiana		Memphis Tennessee	Wichita Kansas		Minneapolis Kansas		Gordon Nebraska		Omaha Nebraska	Denver Colorado		Fort Morgan Colorado		Los Angeles California	Brawley California	Chicago Illinois	East St. Louis Illinois	Indianola Illinois	Kansas City Missouri	St. Joseph Missouri	Tarkio Missouri	Monroe Iowa	New Castle Indiana	Circleville Ohio	
	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Beef Rate	Stock Rate	Beef Rate	Stock Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	Beef Rate	
DISTRICT I																																								
Amarillo	79.20	59.40	96.80	77.00					88.00	67.10	75.90	61.60	70.40	52.80			111.10	82.50	64.90	121.00	85.00	176.00	110.00	111.10	103.40	81.40	133.10	118.80	240.00	240.00	135.30	111.10	135.30	103.40	103.40	135.30	135.30	166.10	183.70	
Canadian	92.40	69.30	105.60	80.30									88.00	72.60			111.10														126.50	111.10	126.50	94.60	94.60	126.50	126.50	166.10	183.70	
Dalhart	90.20	68.20	103.40	79.20									85.80	71.50			111.10							111.10							135.30	111.10	135.30	103.40	103.40	135.30	135.30	166.10	183.70	
Farwell	92.40	69.30	88.00	72.60									88.00	72.60			119.90														145.20	119.90	145.20	110.00	110.00	145.20	145.20	174.90	192.50	
Paducah	71.50	52.80	110.00	84.70									71.50	58.30			117.70														143.00	117.70	143.00	110.00	110.00	143.00	143.00	172.70	190.30	
DISTRICT II																																								
Barnhart	86.90	69.30	108.90	85.80									102.30	86.90			138.60								139.70	151.80					157.30	138.60	157.30	118.80	118.80	157.30	157.30	193.60	211.20	
Del Rio	96.80	72.60	94.60	71.50	84.70	63.80	50.60	38.50	110.00	91.30	118.80	100.10	110.00	86.90	115.50	97.90	132.00					213.40	213.40	150.70	182.50	144.50	212.50	165.50	248.50	248.50	159.50	132.00	159.50	132.00	132.00	159.50	159.50	187.00	204.60	
Llano	74.80	56.10			70.40	52.80	73.70	55.00	110.00	92.40	105.60	80.30	96.80	77.00	110.00	84.70	129.80	110.00	84.70	148.50	123.20			136.40							155.10	129.80	155.10	115.50	115.50	155.10	155.10	184.80	202.40	
Menard	63.80	48.40	110.00	84.70									94.60	75.90			133.10	108.90	83.60	147.40	122.10			133.10						158.40	133.10	158.40	118.80	118.80	158.40	158.40	188.10	204.60		
San Angelo	71.50	52.80	96.80	72.60									90.20	73.70			125.40	101.20	75.90	139.70	114.40			133.10	145.20					150.70	125.40	150.70	112.20	112.20	150.70	150.70	180.40	198.00		
Stamford	62.70	53.90	97.90	73.70									74.80	61.60			119.90							126.50	145.20					145.20	119.90	145.20	110.00	110.00	145.20	145.20	174.90	192.50		
DISTRICT III																																								
Henrietta	38.50	28.60	108.90	81.40									57.20	49.50			111.10								111.10						135.30	111.10	135.30	107.80	107.80	135.30	135.30	166.10	183.70	
Fort Worth			110.00	84.70	70.40	52.80	73.70	55.00					60.50	49.50	105.60	80.30	111.10	84.70	67.10	123.20	105.60			117.70	111.10	102.00			248.50	248.50	135.30	111.10	135.30	107.80	107.80	135.30	135.30	166.10	183.70	
San Marcos	63.80	48.40	110.00	88.00	51.70	38.50	27.50	20.90					94.60	75.90			132.00	108.90	83.60	147.40	122.10			150.70	150.70					159.50	132.00	159.50	132.00	132.00	159.50	159.50	187.00	204.60		
Waco	36.30	27.50	110.00	86.90	55.00	41.80	57.20	42.90					79.20	67.10			115.50	96.80	79.20	135.30	117.70			122.10	134.20					138.60	115.50	139.70	110.00	110.00	138.60	138.60	170.50	188.10		
DISTRICT IV																																								
Mount Vernon	46.20	35.20											85.80	71.50			111.10	101.20	79.20	139.70	117.70									135.30	111.10	135.30	107.80	107.80	135.30	135.30	166.10	183.70		
Navasota	60.50	45.10			34.10	25.30	60.50	45.10					92.40	74.80			129.80	106.70	79.20	145.20	118.80			136.40	148.50					155.10	129.80	155.10	115.50	115.50	155.10	155.10	184.80	202.40		
Texarkana	60.50	45.10			81.40	61.60	96.80	72.60									102.30														119.90	102.30	119.90	104.50	104.50	119.90	119.90	159.50	174.90	
DISTRICT V																																								
Alpine	97.90	73.70	63.80	48.40	110.00	84.70	86.90	64.90	97.90	79.20	135.30	110.00	110.00	84.70	134.20	113.30	160.60	110.00	92.40	148.50	130.90	224.40	213.40	167.20	171.50	131.50	201.50	152.50	248.50	248.50	185.90	160.60	185.90	141.90	141.90	185.90	185.90	215.60	233.20	
Midland	75.90	57.20	75.90	57.20					135.30	110.00			92.40	74.80			128.70	103.40	79.20	141.90	117.70			135.30						152.90	128.70	152.90	115.50	115.50	152.90	152.90	183.70	201.30		
Pecos	90.20	68.20	60.50	45.10									101.20	79.20			160.60	110.00	84.70	148.50	123.20			162.80						185.90	160.60	185.90	141.90	141.90	185.90	185.90	215.60	233.20		
Sierra Blanca	103.40	79.20	38.50	28.60	110.00	92.40	103.40	78.10					110.00	84.70			160.60	112.20	94.60	150.70	133.10			167.20						193.60	160.60	193.60	141.90	141.90	193.60	193.60	215.60	233.20		
DISTRICT VI																																								
Alice	92.40	69.30	112.20	94.60	63.80	48.40	47.30	35.20	130.90	110.00	110.00	88.00	110.00	84.70	114.40	89.10	143.00	112.20	94.60	150.17.																				

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